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APR 24 '44


# ATLANTIC FISHERMAN

APRIL, 1944

★ On a sunlit day last November, the Curtiss Helldiver made its debut at Rabaul. Suddenly appearing from a cloud bank, a squadron of them sank a Jap cruiser and a destroyer, probably sank a heavy cruiser, and damaged a second destroyer. The Jap had had his first, but not his last, taste of Helldiver!

Columbian is happy to share in the production of the Curtiss Helldiver, as well as the Curtiss Commando and the A-25 Bomber. While mention of the parts made by Columbian is still restricted, it can be said that one entire plant is devoted to manufacturing subassemblies and parts. When news of the raid on Rabaul was released, Mr. W. A. Maharry, public relations head of the Curtiss Wright Corporation, wired us: "Insure fullest credit your employees playing important role in production of U.S. Navy's newest dive bombers, SB2C Helldivers."

**COLUMBIAN ROPE COMPANY**
**AUBURN, "The Cordage City" N. Y.**

Columbian PRODUCTS
*Carry the Fight to the Enemy*

Boston Office and Warehouse — 38 Commercial Wharf

# WILLARD MEANS QUALITY!

Wherever storage batteries are used, Willard Batteries are known for *quality*. Willard Marine Batteries stay on the job so long and so well in wartime marine service because they are designed and built for hard use. The Willard Marine Line includes many specially designed types—for Diesel starting, for gasoline engine starting and ignition, for auxiliary power and many other applications. When the time comes to buy new batteries, be a wise buyer—buy *quality*—buy Willards.

MARINE BATTERIES

# Willard

Willards at war: for Tanks • Combat Cars • Jeeps • Walkie-Talkies • Ships—for Cars, Trucks, Tractors and Buses at home

## -have the power to carry on!

Army-Navy "E", awarded to the Willard Storage Battery Company, Cleveland Plant, for high achievement in the production of war materiel.

WILLARD STORAGE BATTERY CO. • CLEVELAND • LOS ANGELES • DALLAS • TORONT

ARMY
E
NAVY
ATLAS WAR PRODUCTION
Is An Enviable Record
Shortly after Pearl Harbor, Atlas decided that the manner in which it could serve the interests of the nation best was to devote all of its facilities and energies to the making of Diesel Engines for our fighting forces and the Merchant Marine. Both men and management rolled up their sleeves and got down to brass tacks on one of the toughest jobs in the history of our organization. Faced with both manpower and material shortages, we were asked to greatly increase our rate of production.
Just how well we did the job is reflected in the fact that the Army-Navy "E" Burgee was awarded both of our manufacturing plants. Just how carefully the work has been done is indicated by the fact that during 1942 and 1943 our ratio of Guaranteed Service to total engine sales stands at 1 to 1000. This means that we have had to spend only $1 out of $1000 to correct defective parts or workmanship. A truly remarkable record in normal times; an outstanding record considering stress of war production.
ATLAS IMPERIAL DIESEL ENGINE CO.
OAKLAND, CALIFORNIA
NORTHWESTERN DIVISION . . SALMON BAY TERMINAL, SEATTLE, WASH.
EASTERN DIVISION . . . . 115 BROAD STREET, NEW YORK, N.Y.
CENTRAL DIVISION . . . . 220 NORTH LA SALLE ST., CHICAGO, ILL.
SOUTHWESTERN DIVISION . . 5720 NAVIGATION BLVD., HOUSTON, TEX.
ARTHUR DUFFY'S SONS, DISTRIBUTORS . . . NEW ORLEANS, LOUISIANA
MATTOON
ILLINOIS
AUGUST 23, 1943
OAKLAND
CALIFORNIA
MARCH 3, 1943
ARMY
E
NAVY
ATLAS
Imperial
DIESEL
ENGINES

# FIGHTING FOOLS WITH THE ARMY AND NAVY . . .

## Ready to work for you Now!

● The New Chrysler Marine Engines are being made for civilian use

For fishing craft that need more dependable, economical power plants

For boats in the "Essential War Effort" class

• • •

● Every New Chrysler Marine Engine Completely Chrysler-made in one plant

**Has the smoothest-finished moving parts** it's possible to make—because of Chrysler's amazing "Superfinish" that gives bearing surfaces an incredible mirror smoothness. Chrysler engines torn down after thousands of miles of use have shown no measurable wear on Superfinished parts.

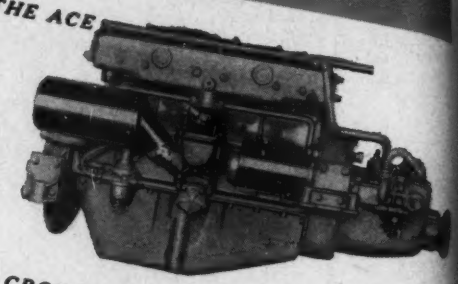
**Improved design,** better materials and new features such as the Full Flow Oil Filter insure outstanding performance.

**Really rugged**—rugged enough to stand up under some of the toughest jobs the Army and Navy have yet done.

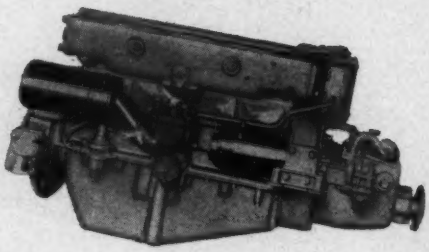
**Astonishingly adaptable**—5 types of new Chrysler Marine Engines, ranging from 80 to 256 horsepower, are made extremely versatile and usable in operating almost any type of powerboat, through the use of a wide variety of Chrysler-developed reduction gears.

**The test of war** has proved that the new Chrysler Marine Engines are best for civilian use.

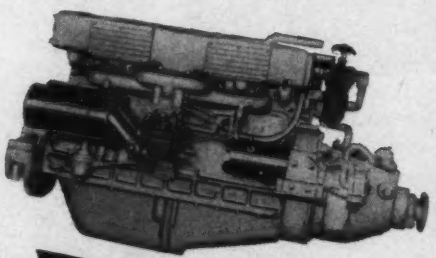
THE ACE



THE CROWN



THE ROYAL



FREE—40-page catalogue—filled with photographs, diagrams, details of all 5 types of the new

# CHRYSLER

## MARINE ENGINES

Ace—Crown—Royal—Twin Royal—Diesel—Marine Engines. Also Chrysler "Sea Mule"

*Send this coupon now to*
Chrysler Marine Engine Div.,
Chrysler Corporation
12224 East Jefferson, Detroit, Mich.

Please send me Free Chrysler Marine Engine Catalogue.

My boat is_____ (Type) (Used For)

Name_____

Address_____

City_____ State_____

# MAXIM HEAT RECOVERY SILENCERS

This Coast Guard Boat, and, in fact, all of its class, is completely heated while at sea through the use of Maxim Heat Recovery Silencers. In addition the Heat Recovery Silencers provide steam for the distillation of sea water to produce fresh water, thus releasing valuable space that would otherwise be devoted to fresh water tanks. Naturally more fuel can be carried and cruising range materially increased. The Heat Recovery Silencers, mounted as shown in the stack, also reduce exhaust noise to a whisper and completely trap all sparks and embers that might act as telltale beacons for enemy detection.

For more complete information on Maxim Heat Recovery Silencers, for both marine and industrial use, send for Bulletins WH-100, WH-102 and WH-103.

For silencing without the heat recovery feature Maxim makes units that effectively silence internal combustion engine exhaust or intake, steam engine exhaust, air compressor intake, vacuum pump discharge, blower intake and discharge, high velocity steam, air or gas discharge. Engine exhaust silencers available with or without the spark arrestor feature. Bulletins on request.

**THE MAXIM SILENCER COMPANY**
74 Homestead Ave., Hartford, Conn.

ARMY E NAVY

# *Superior Diesel* — THE CHOICE OF FISHERMEN

**FROM THE ICE OF THE ARCTIC . . .**

**TO THE BLAZING SUN OF THE TROPICS**

**SUPERIOR ENGINES**

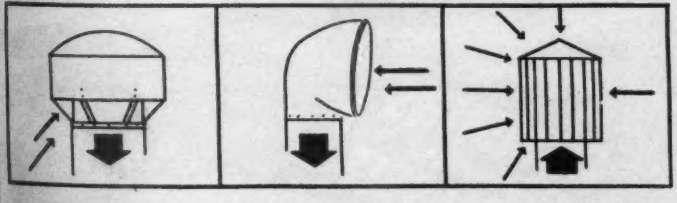
Division of The National Supply Co.

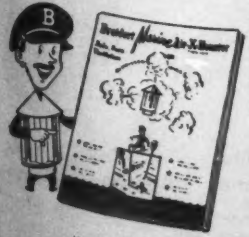
**Executive Offices: Pittsburgh, Pa.**

Sales Offices: Springfield, O.; Boston; New York; Philadelphia; Washington, D. C.; Jacksonville; Houston; Ft. Worth; Tulsa; Los Angeles; Chicago.
Factory: Springfield, Ohio.

*Superior* DIESELS • MARINE, 28 to 1160 H. P.
STATIONARY, 31 to 1160 H. P. • GENERATOR SETS, 12½ to 770 kw.

When green seas break over the decks, Breidert Marine Air-X-Hausters shed water and provide positive ventilation no matter which way the wind blows! Representing an entirely new principle in ventilator design, the Breidert without power consumption approximates at 25 knots the suction power (certified rating) of an electric exhaust fan of equal throat size. *Down-drafts are absolutely eliminated where there is no interior negative pressure!* The diagrams below illustrate the characteristic action of the Breidert (right) compared to that of other common types of ventilators in which adverse winds usually cause down-draft.





**Write for Free Engineering Data Book**

Contains complete specifications and data about Breidert Marine Air-X-Hausters, including certified capacity ratings. Address Dept. AF.

*Manufactured by*

**G. C. BREIDERT CO.**

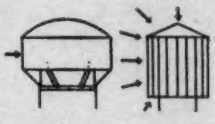
Offices: 634 S. Spring St., Los Angeles 14, Calif.

REPRESENTATIVES LOCATED IN PRINCIPAL CITIES THROUGHOUT THE U. S.

## Safe, sure ventilation with no operating or maintenance costs!

**STATIONARY, NO MOVING PARTS** ... There are no moving parts on the Breidert to jam or get out of order ... no power consumption, no operating or maintenance expense.

**RIGID TESTS PROVE EFFICIENCY** ... Thoroughly tested in the laboratories of Smith, Emery & Co., Pacific Coast Branch of the Pittsburgh Testing Laboratories, the Breidert's high efficiency has been proved with wind blowing at all angles (see right) and certified ratings published. Most conventional type ventilators are tested with wind blowing at horizontal angle only.




**FOR MANY TYPES OF APPLICATIONS** ... Breiderts have been installed on fishing boats, tugs, frigates, tankers, troop transports and other types of vessels ... on deck, portholes, engine room hatchways, kingposts, incinerators, etc. In every case, they have fully substantiated all claims made for them.

**SUCCEED WHERE CONVENTIONAL VENTILATORS FAIL** ... Regardless of wind direction (interior pressure excepted), it is impossible for the positive suction action of the Breidert to be reversed. It works efficiently in many locations where other ventilators down-draft or otherwise fail. Marine ventilating experts are enthusiastic about the Breidert.

# Ground Crew

Next time you see a bomber overhead—stop and think for a minute of what it took to put it up there.

Think of the aluminum that sheathes its sleek lines . . . aluminum from a plant that was only a blueprint yesterday. Think of the propellers and the engines that drive it . . . propellers and engines from factories that were only corn fields the summer before. And think of the men who fly it and fight it . . . men schooled at air fields and training stations which were created virtually overnight.

All of these facilities and more were required to put that bomber up there . . . and all of them were provided by a vast ground crew that numbers its men and machines in the millions—America's Construction Industry.

Here, again, is a job that called for the best in every man and every piece of equipment . . . a job that required power of proven stamina, economy and dependability . . . a job that demanded nothing less than *Cummins Diesel Power.* CUMMINS ENGINE COMPANY, Columbus, Indiana.

*This is the sixth and last in a series of advertisements depicting the war-time role of Cummins Diesel Power in the nation's basic industries. In the construction field, Cummins Dependable Diesels are used to power all types of heavy-duty dirt moving and material handling machinery—trucks, shovels, draglines, tractors, compressors and many other kinds of equipment. The giant 60-yard Tournapull illustrated here is powered by a pair of 200 hp. (Supercharged) Cummins Diesels.*

SALES AND SERVICE

**CUMMINS DIESEL ENGINES OF NEW ENGLAND, INC.**.....18 Hurley Street, Cambridge, Mass., Tel. Kirkland 127
**CUMMINS DIESEL ENGINES OF NEW ENGLAND, INC.**...7 Wethersfield Ave., Hartford, Conn., Tel. Hartford 2-931
**CUMMINS DIESEL ENGINES, INC.**.....209 North 22nd Street, Philadelphia 3, Pa., Tel. Ritterhouse 44
**CUMMINS DIESEL ENGINES, INC.**.....100 Key Highway, Baltimore, Md., Tel. South 12

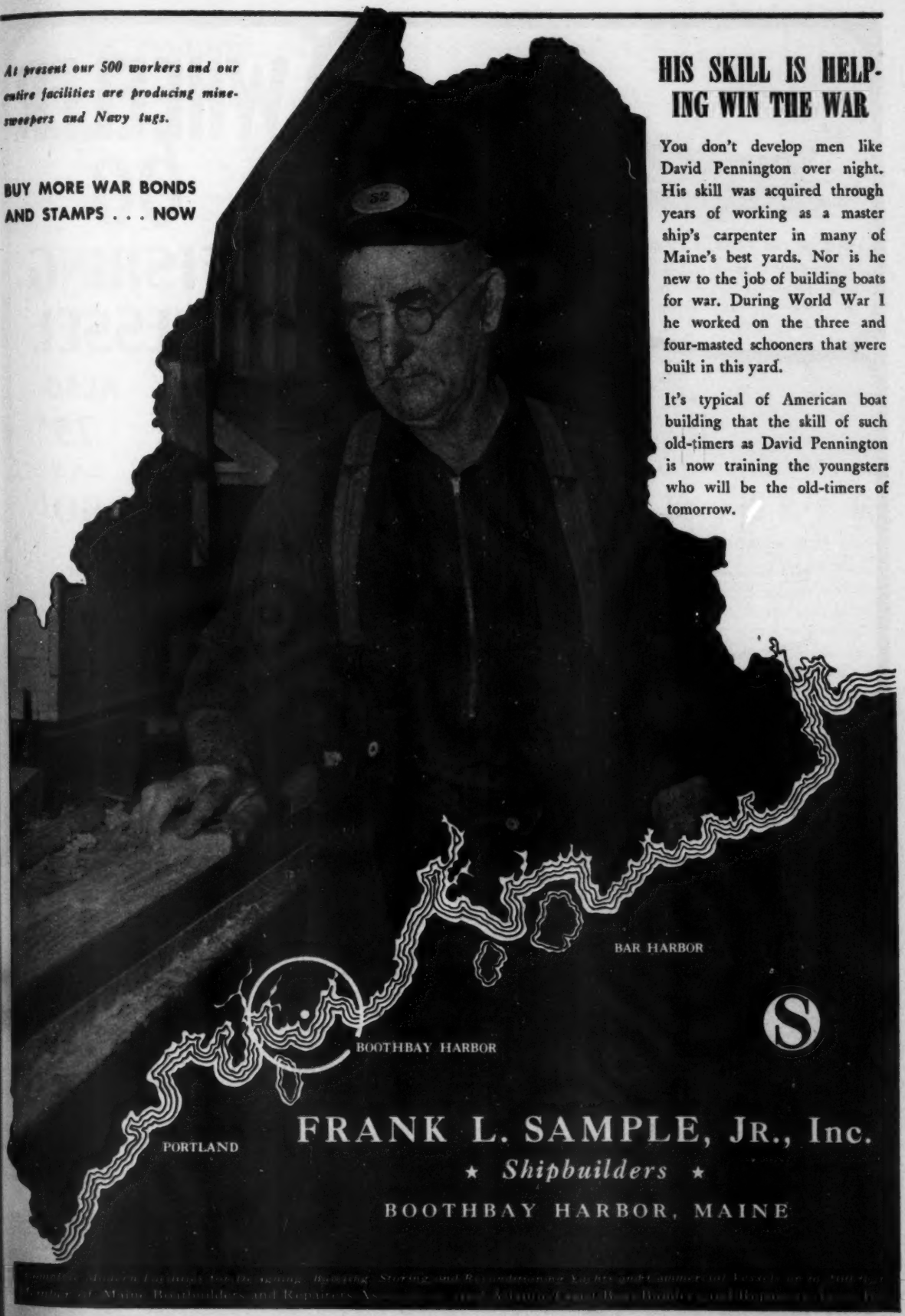
*At present our 500 workers and our entire facilities are producing minesweepers and Navy tugs.*

**BUY MORE WAR BONDS AND STAMPS . . . NOW**

# HIS SKILL IS HELPING WIN THE WAR

You don't develop men like David Pennington over night. His skill was acquired through years of working as a master ship's carpenter in many of Maine's best yards. Nor is he new to the job of building boats for war. During World War I he worked on the three and four-masted schooners that were built in this yard.

It's typical of American boat building that the skill of such old-timers as David Pennington is now training the youngsters who will be the old-timers of tomorrow.




FRANK L. SAMPLE, JR., Inc.

★ *Shipbuilders* ★

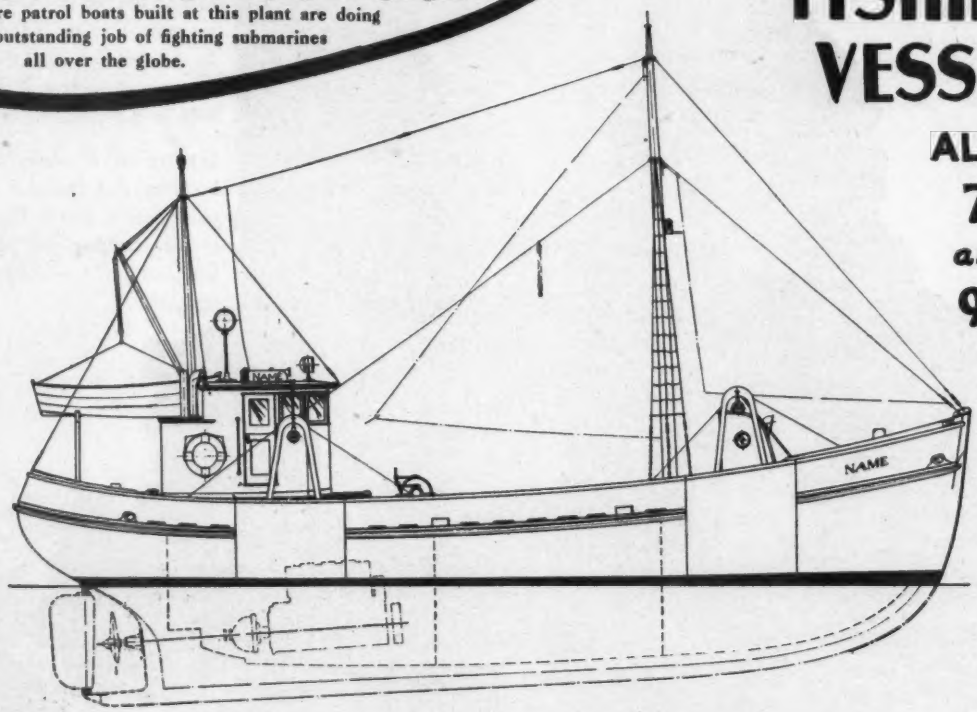
BOOTHBAY HARBOR, MAINE

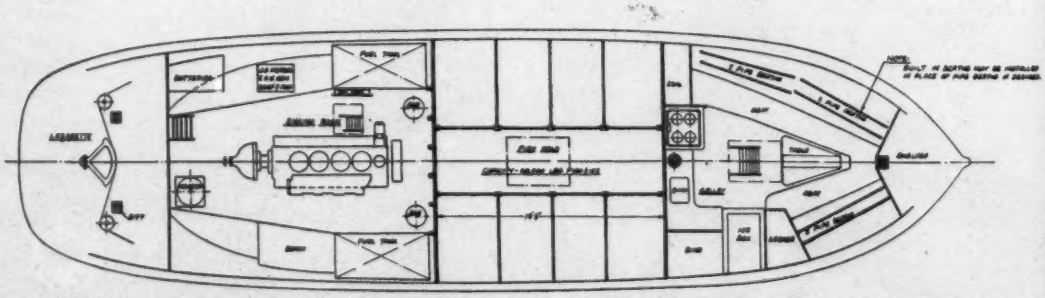
**ONE OF THE FAMOUS 83' COAST GUARD "SUB-BUSTERS"**

Large fleets of these rugged, sea going, hard fighting, off shore patrol boats built at this plant are doing an outstanding job of fighting submarines all over the globe.

# WHEELER 60' FISHING VESSEL

**ALSO 75' and 90'**



**Rugged Wheeler Fishing Vessels are built for year-round HARD WORK. This splendidly equipped plant, with a background of years of quality boatbuilding, solicits your inquiries for trawlers up to 200' in wood or steel, or any other type of commercial vessel, tugs, barges, or service boats.**

*60' Dragger illustrated above is now under construction and inspection by those interested is invited. Let us figure on your requirements.*

**EARLY DELIVERIES AVAILABLE — WRITE FOR DETAILS**

**WHEELER SHIPYARD, Inc.**

Foot of Crapsey Ave.
BROOKLYN, N.Y.
ESplanade 2-5900

# The Sounding-Lead

## Captains Placed in Critical Class

THE director of Selective Service has authorized the Coordinator of Fisheries to certify to State directors for deferment registrants under 26 years of age who are bona-fide Captains of commercial fishing vessels 20 gross tons or over. Registrants in this category or their employers should execute form 42-A (special) obtainable from local draft boards and transmit to area coordinators who, with the assistance of industry consultants, will screen applications in accordance with Selective Service policies. The State director will forward such certified forms with his recommendation to local boards for final action on deferment.

Registrants engaged in commercial fishing or processing of food who are classified as 4-F or 1-C, will not be required to leave the fishery industry, for these occupations are included in the national list of essential activities.

OCF estimates that 20,834 key workers in fishing have already been drafted and that 8,683 such workers of the ages from 18-26 remain in the industry. Figures for shoreworkers show that 2,102 key workers have been drafted, leaving 876 men of this class between the ages of 18-26 in the industry. Among fishing vessel Captains, mates and engineers, it is estimated that 2,887 already have been drafted, and that 2,518 remain in the 18-37 age bracket, with 1,202 of these under 26.

The labor situation in the fishing industry has been fully explained to the 12 regional directors of the War Manpower Commission, who have been instructed to explain to employers outside of the fishing industry the vital need for cooperating in the effort to send to the industry all workers who can be spared, particularly during peak fishing periods; and to refrain from hiring workers indiscriminately from fishing occupations.

It is expected that the cooperation of agricultural agencies can aid in getting off-seasonal farm labor into fishing occupations. The WMC is sending a representative to Newfoundland to negotiate for fishermen who could be brought to this country.

## OPA Procedure Investigated

FOLLOWING the securement of a $25,000 appropriation through the efforts of Congressman Bland for investigation of the effects of War on the fisheries by the Merchant Marine and Fisheries Committee, meetings were held early this month presided over by Congressman Petersen, chairman of the subcommittee on fisheries. Because of OPA's alleged efforts to effect reforms during wartime, the growth of black markets and the confusion of ceiling price regulations, the first two hearings were held with OPA officials and industry spokesmen. Those meetings represented the most comprehensive study of OPA procedure and its possible effects on reducing seafood production and demoralizing the industry. One objective of the investigation is to develop data on which base recommendations for changes in OPA fish pricing policy in connection with the pending extension of the overall OPA set-up.

A five-point program to correct the "chaos" now existing in OPA regulations of the industry was presented by E. H. Cooley of the Massachusetts Fisheries Association. He urged "a qualified business executive" to head the program, formulation of a "clear and specific program", creation of an industry advisory counsel which "would be respected, and whose advice would be regarded," strict enforcement, and review and approval by the War Food Administration.

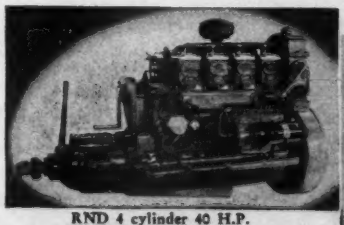
## Crew Wage Case Before Board

THE Atlantic Fishermen's Union wage increase demand is now before the War Labor Board in Washington. Under the Union's plan, the 50-50 lay would continue but certain operating costs now assumed by the crews would be paid by the owners. The resulting saving to fishermen on large vessels would boost their annual earnings $1,000 per man, it is reported.

YOU CAN TELL BY THE R. P. M.

IF you are a commercial boatman, you are used to the sound of a heavy-duty engine. Next time you get a chance, listen to a Palmer Diesel. You will find that this engine can idle down to 250 R.P.M. and run steadily at that speed—all day if necessary. You will know in an instant that it is a heavy-duty engine in a small package. The weight, and many sensible features of the Palmer Diesel, will tell you that it was designed for long life in work boats and is not an automotive or industrial conversion. It would pay you to investigate. Write for information. Even though Palmer is engaged in all-out war work, civilian letters will be promptly answered.

PALMER BROS. ENGINES, INC., COS COB, CONN.



RND 4 cylinder 40 H.P.
RND 6 cylinder 60 H.P.
For marine use and stationary

RND 1 cylinder 9 H.P.
For stationary use only

*Palmer also builds gasoline engines ranging from 2 H.P. to 150 H.P. for marine use.*

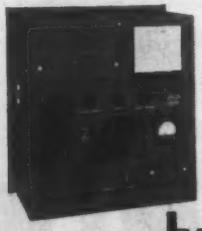
PALMER DIESELS

THE FISHERMAN'S FRIEND FOR FIFTY YEARS

SALMON FISHERMEN ANSWER THE CALL

Today, the fishing industry is producing to the utmost with every means possible. This production is vitally needed to feed the armed forces and the people of all the Allied Nations. Tomorrow, the fishing industry, even with expanded fleets, will have to continue full capacity production to help feed the world.

After the war communication needs will be greater than ever and Radiotelephones will assure greater efficiency in the operation of fishing fleets—giving quick communication with shore when information is needed and perhaps foremost of all—Safety! Less interference, better selectivity and a wider range of uses are what you will get in your Hallicrafters Radiotelephone.



BUY MORE BONDS!

hallicrafters RADIO

THE HALLICRAFTERS CO., MANUFACTURERS OF RADIO AND ELECTRONIC EQUIPMENT, CHICAGO 16, U. S. A.


## Rajafish Priced; Single Ceilings for Yellowtails, Blackbacks

CEILING prices for fresh yellowtails and blackbacks, formerly based on size differentials, were changed effective April 17, by the establishment of single per pound ceilings for all sizes of these fish.

The new ex-vessel bulk prices for yellowtails are 4½c from April through September, and 6½ from October through March. Blackback prices, which now conform to a new Winter season, are 7c April through November and 10 from December through March.

The margin between the buying and selling prices of primary fish shippers for fresh yellowtails, blackbacks and sea dabs, has been reduced from two cents to one cent. The Summer shipper sales prices for round and dressed fish respectively are now 8 and 11½ for blackbacks, 5½ and 8½ for dabs and yellowtails.

Ceiling prices have been placed on rajafish, which at the producer level are 1c for round, 2½ for saddles and 3½ for wings on a year round basis, with primary shipper prices 1c higher.

Fillet prices for the blackbacks, sea dabs and yellowtails are fixed at the lower yellowtail prices inasmuch as all three species are indistinguishable in fillet form and yellowtails form the bulk of the fillets. These prices at the primary fish shipper level are fixed at 24½c per pound. Also, lemon sole and gray sole fillets ceiling prices will take yellowtail fillet prices unless these items are wrapped and marked either as lemon sole or gray sole.

## Lynch Succeeds Triggs in OPA

HOWARD LYNCH has been appointed Acting Head of the Fish Section of the Food Price Division of OPA. He succeeds Charles W. Triggs, who resigned April 15 to accept a position as Executive Secretary of the Fish Distributors Cooperative Association, Inc., a newly formed group of midwestern fish firms for whom Mr. Triggs will maintain a Washington office.

Mr. Lynch, who served as Mr. Triggs' assistant in the Fish Section, has more than 25 years of experience in the industry. He formerly was president of the John A. Lambert Fish & Seafood Company, and has served as manager of the Wallace, Keeney, Lynch Fish Corporation, both located in Fulton Market.

## Fishermen's Income at Peak

UNITED STATES fishermen last year received more for their catch of fish and shellfish than ever before. Although there were fewer fishermen at work because of the war and production was below the peacetime normal, the fishermen received an estimated $180,000,000.

In 1939 the production of U. S. and Alaska fisheries amounted to 4,443,328,000 pounds for which the fishermen received $96,532,000. In 1941, when production reached the record high of 5,000,000,000, fishermen got $134,000,000 in return. Last year production was about 4,000,000,000 pounds.

*"No, no, Thornton, I hired you for a different type of fishing!"*

FROM THE "AMERICAN" SERIES OF UNITED STATES NAVAL VESSELS IN ACTION

*From a painting in color by Milton Menasco**

# THE FIRST MARSHALL-GILBERT RAID

*A Review by Fletcher Pratt, Noted Naval Authority*

The Japs had bases on Wotje, Mili, Jaluit, Makin and Kwajalein; islands the League of Nations had given them to hold in trust for the world. In January 1942 they began to assemble in these harbors an invasion fleet — transports, cruisers, submarines, with seaplanes and land planes and tenders for both. Their plan was to walk down the ladder of islands through the Gilbert and Ellice chain to Fiji and the New Hebrides, thus cutting communications between America and Australia. With our battleship fleet out of commission at Pearl Harbor they were pretty sure we could not interfere. Their error. Admiral William F. Halsey had been cruising those waters with a force of cruisers and the carriers, *Lexington, Enterprise* and *Yorktown,* and he knew their intentions. Before dawn on the first of February, the Japs at their bases woke to a thunderous dawn—bombs bursting among hangars and ships sinking in the harbors. At Wotje, Halsey's cruisers headed by the *Salt Lake City,* ran in and deluged the place with a concentration of gunfire that smashed everything ashore. The invasion fleet was wiped out and the route to Australia was saved.

★ ★ ★

"American Superior" Manila Rope and "War-Eagle" Sisal Rope are still being made, but only for vital war uses. Meanwhile the half-century of experience behind our first line ropes is being used to give our trade the very best substitutes possible. You can accept any "American" rope with confidence. CONSERVE ROPE. Write for free booklet "ROPE FIGHTS".

**FREE PICTURE SUITABLE FOR FRAMING*—A full-color reproduction of the above painting, with a chart and additional details about this engagement, may be had upon request. Write for your copy today.

AMERICAN

MAKES GOOD ROPE

AMERICAN ROPE

TWINE • OAKUM • PACKING

AMERICAN MANUFACTURING COMPANY, Noble and West Sts., Brooklyn 22, N. Y. *Western Factory:* ST. LOUIS CORDAGE MILLS, St. Louis 4, Mo.

*Sales Offices:* Baltimore, Boston, Chicago, Houston, New Orleans, Philadelphia

OFFICIAL U. S. NAVY PHOTOGRAPH

# Count the FATHOMETERS

On the seven seas of the globe, countless ships that are the life-line of America's fighting forces make their way through fog, storm, unfamiliar waters, and along strange coasts. Wherever American keels plow the seas, the FATHOMETER is the faithful, constant recorder of the depths and shallows,—protecting men and munitions, food and supplies.

American ships of war, from troop transports and fighting vessels to tankers and cargo supply ships, depend upon the FATHOMETER for continuous, echo-depth soundings, whether in Arctic gales, Atlantic fogs, or the blinding rains of the South Seas.

## SUBMARINE SIGNAL CO.

*Established 1901*

160 STATE STREET BOSTON, MASS.

ORIGINATORS AND MANUFACTURERS OF THE FATHOMETER

# Scourge of the Wolf-Pack!

FROM the blue waters of the Caribbean to the icy depths of the North Atlantic, Nazi U-boat packs are on the run. Speedy, hard-hitting Navy Destroyer-Escort ships, quantity-built in several American shipyards, have done their part to clear the convoy lanes of enemy submarines.

The men and women of Defoe—workers and management alike—are proud to be constantly ahead of schedule in the production of these famous DE fighting ships. The unique "roll-over" construction process has made this record possible.

Due to these accomplishments, the Navy now has called upon Defoe's engineering and production facilities to build fleets of LCI(L) Landing Craft. These large ocean-going invasion vessels are proving a potent force in the march to Tokyo and Berlin.

When Victory is won, the experience, skill and spirit of Defoe men and women—now devoted to the needs of the Navy—will be at the disposal of industry to provide products of better quality, greater value and lower cost for peacetime America.

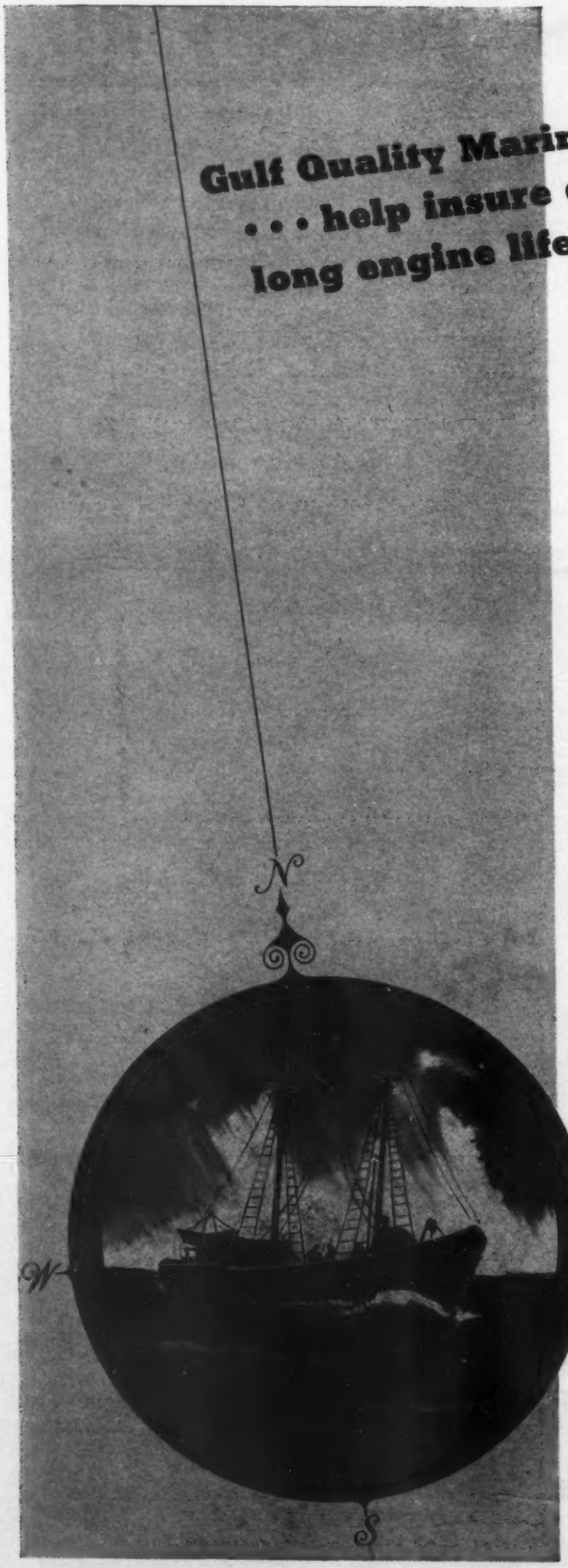
**BACK THE ATTACK—BUY WAR BONDS. Defoe workers take more than 10% of their pay in War Bonds**

DEFOE SHIPBUILDING COMPANY, BAY CITY, MICHIGAN

*Three White Star Renewal Citations now decorate the Navy "E" Award won by Defoe workers.*

Defoe

Ships for Victory
Servants for Peace



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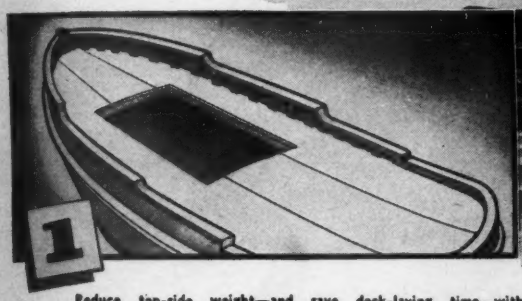
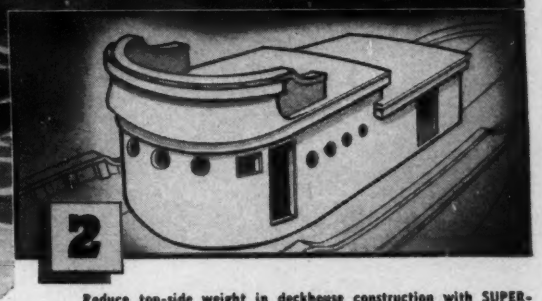



Reduce top-side weight—and save deck-laying time—with SUPER-Harbord giant plywood panels. Proven by use in 46' army tugs, where two giant panels (power-sawn and jigged to fit coaming mold) form the complete deck. Caulking is eliminated, hence maintenance costs are reduced. The center of gravity is lowered because related thickness is reduced by reason of the plate strength of SUPER-Harbord. Other weight is saved through the reduction in the number of fastenings needed.




Reduce top-side weight in deckhouse construction with SUPER-Harbord giant plywood panels. Strong, durable, thoroughly-weatherproof SUPER-Harbord—much sturdier pound for pound than old-style materials—may be steamed and curved to fit rounded house and superstructure details. Large, one-piece sub-assemblies can be made with precision accuracy. Regular size panels too, are ideal for interior work—for lockers, bulkheads, furniture. Weight is saved every time SUPER-Harbord is used.

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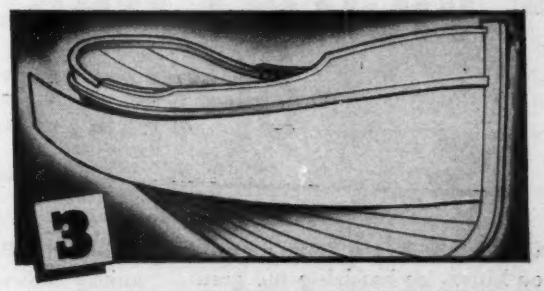


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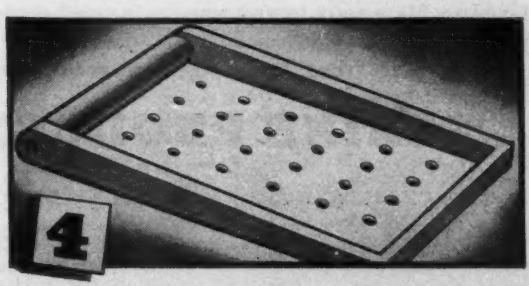


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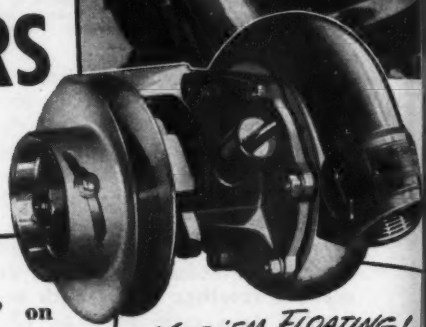

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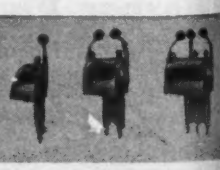

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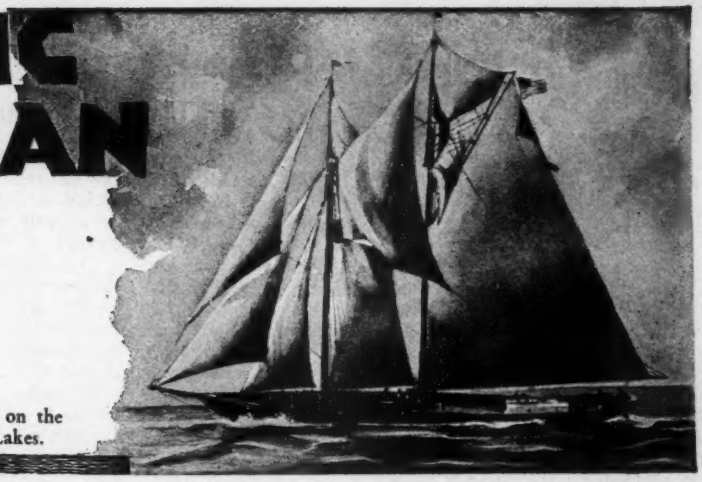

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VOL. XXV APRIL 1944 NO. 3


## Scientific Management To Increase Chesapeake Catch

**By Charles E. Jackson, Fish & Wildlife Service***

THROUGHOUT the long history of our fisheries, we have had no coordinated program in which the efforts of all the states and the federal government have been united. Production could be increased substantially by opening up certain areas as yet undeveloped, by utilizing species that are now neglected, and by eliminating wasteful and inefficient practices in the taking, processing, and distributing of the fishery yield.

The total yield of the Chesapeake Bay is now between 300 million and 325 million pounds—about 8 percent of the total production from all sections of the United States and Alaska. With due regard to the size of the water areas involved, this figure represents a high rate of productivity.

The half dozen species of greatest importance in the Bay today, from the standpoint of volume of production, are menhaden, oysters, croakers, crabs, river herring, and sea trout. These six account for 90 percent of the total production. Four of these species show striking declines from their peak production. In 1941, only 182,000,000 pounds of menhaden were taken, compared with 366,000,000 pounds in 1920. Oysters have fallen from 117,000,000 pounds in 1880 to 35,000,000 today. The yield of crabs reached 69,000,000 pounds in 1930 but is less than half that at present. River herring has dropped from 67,000,000 pounds in 1908 to 17,000,000 pounds.

They, along with the shad which has declined to about a fifth of its former yield, are the species on which the Chesapeake's fishery fame was built. They are a warning that what has happened to them can happen to others. They are a challenge to us to take active measures before depletion has proceeded so far as to make rehabilitation impossible.

It is safe to say that we are not likely to open up any important new fishing grounds in the Bay. The fisheries now are scattered along the entire shoreline, and the total area is not so large that any important resources can very well have remained undiscovered The single important expansion of the Chesapeake's fisheries which has occurred in recent times was unique and will not be duplicated. This was the development a little more than 10 years ago of a Winter fishery, prosecuted by ocean going trawlers, off the mouth of the Bay. This fishery draws upon the same stocks of fish that are present within the confines of the Bay during the Spring, Summer, and early Fall—sea trout, croakers, sea bass and flounders.

Then how and in what fields may you expect to expand and develop the Chesapeake fisheries? You have a two-fold opportunity. First, you can apply to the fin fisheries a system of scientific management that will stabilize and in some cases greatly increase their yields. Second, you can place the shell-fisheries under an intelligent system of cultivation or water farming that will improve the quality, increase the quantity, and safeguard the production.

The Chesapeake is an ideal area for the successful application of the principles of modern fishery management. Its major fisheries are established; their potential productiveness is reasonably well known. The exploratory period in the development of your fisheries is behind you. It now remains to make the best use and to realize the full possibilities of this great natural wealth.

The decline in shad production in Chesapeake Bay has been causing an annual loss of income which even in prewar years amounted to at least $500,000. This fishery once yielded 17,000,000 pounds a year. Production now is only 3,000,000 pounds.

The amazing recovery that has taken place recently in the Hudson River shows us that this is an unnecessary condition which need not be tolerated. In 1916, the shad runs of the Hudson had declined so alarmingly that catches were less than one percent of the yield about 1900. In contrast to that condition, fishermen today are taking more shad in the Hudson than have ever been caught there before. The reason is simple —the fishermen on the Hudson River are required to allow enough shad to spawn.

Fish and Wildlife Service biologists have found that in the Hudson, where there has been a complete recovery of seriously depleted runs, fishermen are taking 60 percent of the shad that come in from the ocean to spawn; leaving 40 percent of each run to continue their journey to the spawning grounds and deposit their eggs. In the Chesapeake, however, the toll of the fisheries amounted to 92 percent! It is not hard to understand why, with only 8 out of every hundred shad allowed to spawn, the shad fisheries of the Chesapeake Bay are in their present state of depletion.

A few years ago the first step was taken to restore the shad runs of the Bay, increase the income of fishermen, and give the public a larger supply. This was the adoption, by the Maryland legislature, of a measure sponsored by the fishermen themselves and fully approved by the Maryland conservation officials. Its effect was to control the number of licenses issued for fishing in the Bay and by this means to prevent excessively heavy fishing.

This measure, now widely known as the "Maryland Plan", does not necessarily call for continued reduction in the number of licenses. It merely provides for control of the number of

*(Continued on page 30)*

*Abstracted from speech delivered at Maryland Conservation Forum, Baltimore, Md., on April 12, 1944.

# Bettering Deckhouses on Small Fishermen

## By Capt. Elwell B. Thomas

MOST of the larger fishing vessels are fitted with properly constructed deckhouses, built in such manner that, with decent care, they will not leak or decay for many years. However, a large percentage of the smaller fishing boats are fitted with deckhouses that leak in various places, are weak, poorly designed, etc. Some of these houses are of ugly design, or are not suited to the particular boat they are fitted on.

In designing a deckhouse, consideration should be given to requirements other than the use to which the house will be put. For instance, it may be desirable to fit a wheelhouse which will accommodate five men comfortably, but it may not be practical, because such a house might have any of these drawbacks: cause excessive windage, make the vessel crank, take up deck room which cannot be spared, be so wide that the top will hit the piling of a dock if the vessel rolls when moored, or be too large for the boat. Therefore, it may be necessary to revise downward the plans for the deckhouse so that it will accommodate three men instead of five, and thus prevent the vessel from being spoiled. Of course, there are times when the opposite is the case, with a deckhouse being so small as to look silly. This is particularly true in the case of some lobster boats and small draggers.

When deckhouses were first fitted on small fishermen, it was a case of building a temporary shanty over the companion scuttle. Gradually this shanty grew to be the modern pilot house or helmsman's shelter. Many of the wheelhouses that were built over the companionway were just big enough to accommodate a man's head and shoulders because the builders were so unimaginative, and did not seem to realize that the house could be built large enough in most cases to accommodate the entire crew of two or three in bad weather. The small houses seemed like a little chicken coop.

### Size and Location of Windows

The matter of windows has often been given little thought insofar as appearance is concerned. The house should have a nice balance of appearance and some imagination and thought should be used in making the plans for the house. The house should be so designed that it does not stick out like a sore thumb, but rather appears like an integral part of the vessel. While I mention the matter of windows, the same consideration applies to ports in a lesser extent.

Windows should not be of excessive size or the vessel will have the appearance of being a floating greenhouse as well as being unsafe, whereas the use of windows that are too small will make the deckhouse look like an armory or armored car. The windows should be properly placed so as to prevent the house from looking massive at one end and light and feathery at the other.

If headroom must be had at the sacrifice of appearance and possible safety, then give up the idea of full headroom. Whenever possible, design interior arrangements around the deckhouse instead of designing the deckhouse around interior arrangements as the latter generally results in hideousness.

It is most important not to build a deckhouse or other structure whose top will strike dock piling if the vessel rolls. This mistake has been made in many pleasure and party boats. Most such boats with permanent awnings have the awnings built out almost to the vessel's rail, and when the wake of a passing vessel hits them the awning fetches up against the piling with a sickening crash. Either the sides of the structure must tumble home or the structure must be narrower.

### Proper Framing

Even a small deckhouse should be properly framed up and fitted with suitable sills. These sills should be carefully fitted in the proper manner. If the house is small and the deck cut away entirely within it, the sills should be fitted in the same manner as a properly fitted hatch coaming, and should be thoroughly bolted to deck beams with the deck planking laid against or butted to the sill with a good caulking seam. This type of construction is superior in every way to the method of placing the sills atop the deck plank. However, the sills must be heavy enough to hold the caulking and not spring in and open up the seam, as might be the case in a very small boat if sills were not unusually heavy in comparison to the rest of the structural members of the boat.

The planking of the house should be fitted to a rabbett in the outer upper corner of the sill, as this will give another good caulking seam and practically insures watertightness. I might add that this type of construction not only insures watertightness but stiffens the entire structure considerably as well.

Of course where a full deckhouse is constructed, it is advisable to either bolt the sills atop the deck planking or use the method of fitting the sills direct to the deckbeams and having the decking inside the house made up to the sills, thus making the sill integral with the rest of the deck.

Proper deckhouse construction, whether large or small, should employ staybolts right down through the structure, but in the construction of pilot houses one must be careful to use bronze staybolts. I emphasize this as I know of several draggers which have been built recently with iron stayboits, and these boats have had the alternative of using a binnacle of great cost or ripping the house more or less apart and replacing the iron staybolts with those of bronze. This is also an expensive proposition, but is the more practical as a rule.

### Tight Planking

The matter of making the outside walls of a deckhouse watertight is always a problem, especially in the lighter houses. If the wood is thoroughly seasoned, there is less trouble, but even so, much difficulty is had.

Pilot houses of some lobster boats are planked with t & g material without even heavy paint in the t & g, and they of course leak like a sieve. I once built such a small house by setting up the oak frame, planked up with about 1" x 6" pine. Heavy black goo of the type used to patch roofs was smeared into each joint as the plans were put together, the planks being frequently doweled to each other with cut off copper nails as dowels in addition to heavy fastening to the frame. This little house has been on the particular boat for almost 10 years and is still as tight as a cup, in addition to being extremely strong. However, I do not think this type of construction would be suitable in houses of much size and I feel that I must warn that the goo will show through the paint somewhat for the first couple of years.

If the house is of such weight as for the plank to measure 1½" or more in thickness, the seams may be caulked and watertightness insured and this may occasionally be done with cabin trunks of smaller boats where the plank is thinner than 1½". One solution is to cover the house sides with canvas but this solution has many drawbacks, especially with heavy commercial boats such as oyster boats, since the canvas is apt to be gouged and torn and then the paint will eventually crack badly.

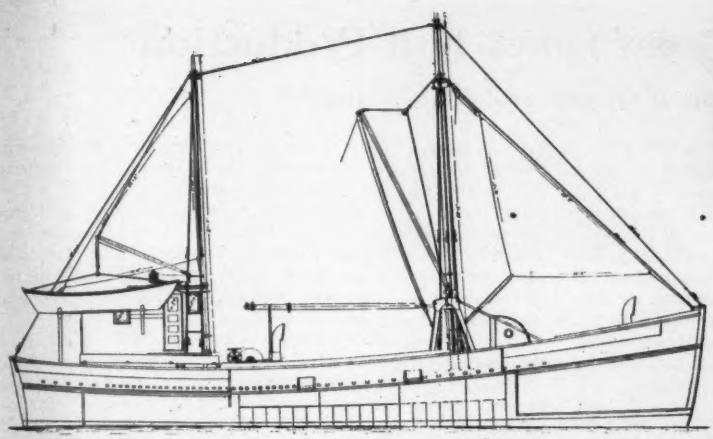
If t & g stock is used, it is advisable to lay a small strand of cotton in the groove and also work some elastic composition into the groove, then wedge the next plank up just as tightly as possible. The idea of running heavy paint in the groove helps a little but does not insure watertightness as much as is commonly supposed.

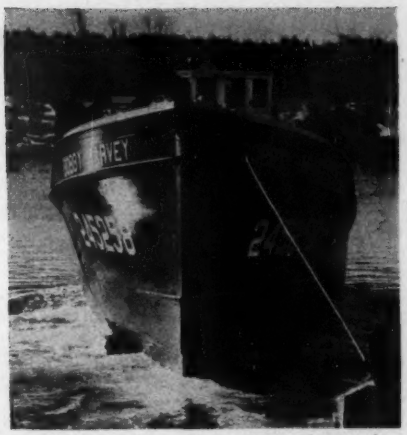
The use of a spline properly fitted makes a far better joint than does t & g but even so I favor the use of a little elastic composition to help insure a tight joint. In planking up with the use of splines one should be sure to amply protect the ends of the plank and protect the spline from decay.

Of course, cheapness is the best way to get away from watertightness in deckhouse construction, since only careful and thorough workmanship will guarantee the desired results. This means the expenditure of money, but it seems worth the expense to have a dry house.

For rugged construction, I think that a double planked deckhouse is best. The plank will serve best if both thicknesses are

(Continued on page 38)





*Outboard profile of the 71 ft. scallop dragger "Bobby & Harvey", and right, the vessel sliding down the ways at Bristol Yacht Building Co., So. Bristol, Me.*

# "Bobby & Harvey" a Well-Fitted Scalloper

THE new scallop dragger *Bobby & Harvey*, launched March 6 by Bristol Yacht Building Co., South Bristol, Me., sailed for her homeport of New Bedford on April 10. She is practically a duplicate of the *Carol & Estelle*, completed by the yard in January, and is owned by Morris Phillips and Joseph L. Schwartz of Fall River, Mass. The vessel was named for the sons of the owners, and was christened by Miss Frances Phillips.

The *Bobby & Harvey* was designed by Albert E. Condon of Fairhaven, Mass., and is compactly arranged and furnished with all fishing and living conveniences. She is 70′ 7″ in length, and has a 17′ 6″ beam and 9′ 6″ draft.

The after cabin contains two bunks, a large clothes locker, and a hot water heater which heats the engine room and deckhouse. The lazarette is entered through doors on either side of the stern post, with the one on the port side giving access to the coal bin. A toilet room adjoins the house starboard of the companionway, and its water closet is flushed by discharge water from the engine.

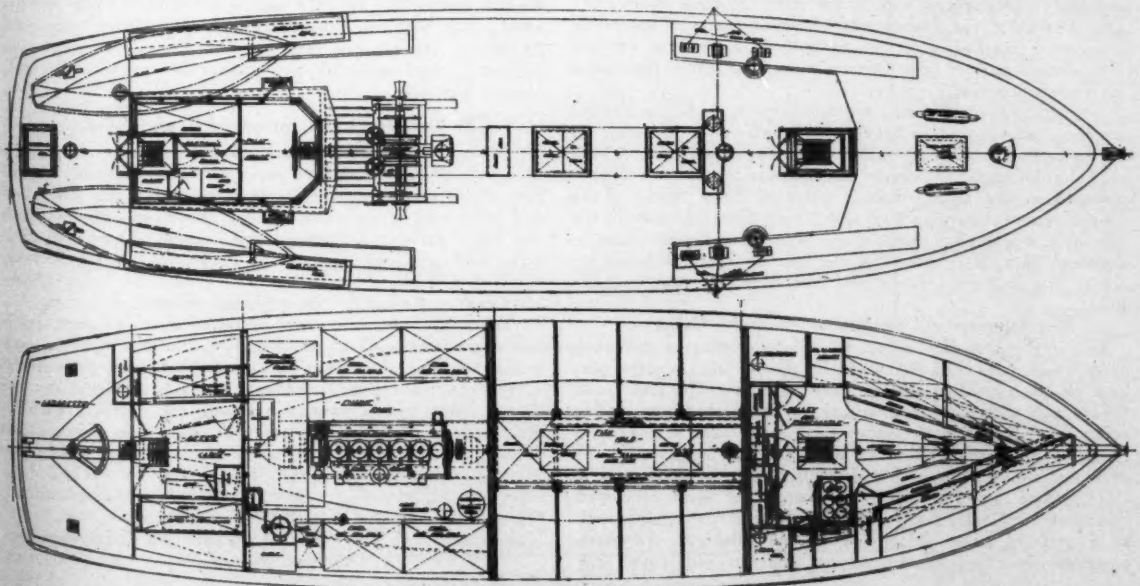
The stateroom is well arranged with port lights on either side, a door to the cabin companionway, and a large chart table with drawers under. The control panel for lighting is located in this room.

The pilot house affords good visibility and contains the engine controls, a Kelvin-White under-lit compass and a Submarine Signal Co. Fathometer.

The vessel is equipped with an Edson No. 3 geared reduction bronze steerer, with bulkhead type installation, and is hooked up with chain sheaves and galvanized forged chain leads running below deck. The steering wheel is an Edson 36″ model of

*(Continued on page 46)*

*"Bobby & Harvey" launching party, showing from left to right, Harvey Phillips, Mrs. Morris Phillips, Morris Phillips, Miss Frances Phillips, Mrs. Joseph L. Schwartz, Bobby Schwartz, and Joseph L. Schwartz.*



*Arrangement plans of the "Bobby & Harvey", designed by Albert E. Condon of Fairhaven, Mass.*

# Analysis of Great Lakes Fish Production

## From Report of International Board of Inquiry

THE most recent year for which the take of the various kinds of fish in the several Great Lakes was readily available for study was the year 1939.

The lake herring, of which there are several species, are taken in largest quantity, and in fair quantity in all the lakes. The three species of pikeperches (blue pike or pickerel, yellow pike or pickerel, and sauger) are next most numerous, and are taken chiefly in Lake Erie and in fair quantity in Lake Huron. Lake trout come next and are taken mainly in the three upper lakes. Whitefish, yellow perch, and carp follow in that order, the first of these being found in fair quantity in all the lakes and the other two largely in the south, in Lake Erie and Lake Michigan.

The take is greatest for Lake Erie and least for Lake Ontario. Irrespective of the reasons therefor, the number of pounds taken per square mile of area is very much greater for Lake Erie than for any other lake and is lowest for Lake Superior. This condition seems to be usual, since it existed in 1908, 31 years earlier, and also in 1879, 60 years earlier. Similar differences are to be seen within one lake. For example, on the Canadian side of Lake Ontario the number of pounds is much the greatest for the eastern part with most shallow water and much the least for the central part with least shallow water.

### Fluctuations in the Take

The take of each kind of fish varies from year to year, sometimes greatly. Some of these variations are in the opinion of fishermen due to changes in the abundance of the fish either locally or generally. Changes in both fishing effort and distribution of the fish, which it has not as yet been possible to assess fully, prevent determining how accurately the fluctuations in the take represent changes in the size of the stock of a particular kind of fish in a lake. Fishermen reported marked fluctuations in local availability or abundance not only of the kinds they want but also of those they do not want, such as the burbot or ling. The extent of these fluctuations varies greatly from kind to kind and from lake to lake.

The situation can be illustrated by the following: In Lakes Superior, Michigan, and Huron, substantial amounts of lake trout, whitefish, and lake herring are taken. The fluctuations in the take of lake trout are less pronounced than those of either the whitefish or the lake herring. The lake herring include various species and, if the data for these were available separately, the fluctuations would so far as is known be even more marked, as is shown both in Lake Erie and the northeastern part of Lake Ontario where the take is dominated by the shallow-water species.

The fluctuations for lake trout, whitefish, and lake herring are more pronounced in Lake Ontario, where the amounts are somewhat small, than in either Lake Superior, Lake Huron, or Lake Michigan. Similarly the fluctuations are more pronounced in the rather distinct parts of Lake Huron (Lake Huron proper, Georgian Bay, and North Channel) than in the lake as a whole. The fluctuations occur at different times in different lakes, as is shown by the take of whitefish being recently low in Lakes Huron and Michigan, but high in Lake Erie.

### Development and Decline of Particular Fisheries

Before the statistics began to be collected, the whitefish fishery was quite well developed in all the lakes, except perhaps on the Canadian side of Lake Superior. The lake trout fishery was well developed in Lake Ontario, but was undergoing development in the upper three lakes. The lake herring comprise so many species and with different habits that the development of fisheries for them is neither a simple nor a clear picture. In some places, the fishery for them developed comparatively early, before the first statistics were collected, as in parts of Lakes Ontario, Erie, and Michigan. Development was later in Lakes Huron and Superior and is not very fully developed even yet on the north side of Lake Superior, where the facilities for handling and shipping are somewhat poor. Evidence was given that even at the western end of Lake Ontario the shallow-water species, that is so highly regarded as it occurs in Lake Erie, is disregarded because considered of poor quality ("hard"). The more highly regarded deep-water species are little fished in certain parts of the Great Lakes because nets of mesh suitable for them take numbers of young lake trout.

The sturgeon fishery developed rapidly around 1880 in all the lakes and the take amounted to 8,300,162 pounds in 1885. It declined rather rapidly through the nineties and in the present century has never reached 200,000 pounds. The sturgeon is a striking instance of a fish that has not withstood intensive fishing. It is peculiar in its large size, long life and late maturity and in frequently having the habit of entering deep rivers for spawning.

The fishery for the northern pike showed slow development the last quarter of the nineteenth century, yielded 3,630,800 pounds in 1908 and has recently declined in amount.

The lake herring (cisco) fishery of Lake Erie was developed rather rapidly during the eighties, fluctuated rather considerably until 1924, when there occurred a catastrophic drop. Since that drop there has been fluctuation at a very much lower level.

There are also other cases of decline, which are less striking. There has been a rather gradual decline in certain fisheries at the western end of Lake Erie. The lake herring take practically vanished around 1890 on the Canadian side of the Detroit River, and the whitefish take greatly decreased at that time and practically vanished about 1920. The lake herring take on the north shore of Lake Erie from Point Pelee to the Detroit River and along the Michigan shore, which forms the western end of the lake, declined rapidly through the nineties and has shown no particular recovery since. On the Michigan shore the whitefish take declined around 1920 and has recovered but little since then in spite of the fact that the take for the whole lake was greater in 1939 than reported for any previous year.

There has been some belief that, if one fishery declines in a lake, others will develop to replace it, and the situation in Lake Erie since the collapse of the lake herring fishery has been mentioned in this connection. Comparison of the takes before and after that collapse in 1925, taking the 12-year periods from 1913 to 1924 and from 1928 to 1939 inclusive, shows that with the lake herring take lower by more than 25 million pounds per year, the take of yellow perch, blue pikeperch, and whitefish was higher by nearly 11 million pounds per year.

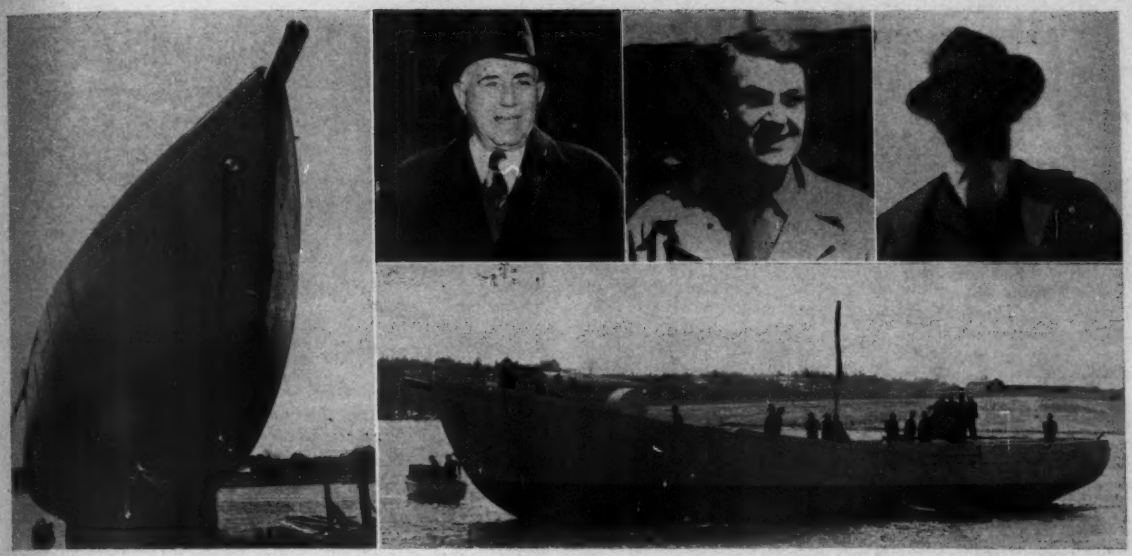
### Extinction and Introduction of Species

The salmon that ascended various streams from Lake Ontario during the pioneer period, at first declined in numbers and then practically vanished around 1880. They have not been seen since. The salmon spawn in gravel beds in the lower parts of streams, which became altered in various ways with the development of settlement. Attempts were made to introduce them into the streams of Lakes Huron, Michigan, and Superior but without success.

Various attempts have been made to introduce new species into the waters of the Great Lakes region. Two of these now furnish sizeable fisheries. The carp, obtained from Europe, were widely distributed through the United States by the United States Fish Commission during the eighties. Early in the nineties they were being taken in Lakes Erie and Michigan in sufficient numbers to appear in the statistics, by the late nineties in Lakes Ontario and Huron and by 1912 in Lake Superior. Full possibilities have probably not yet been realized. The quantities taken fluctuate rather greatly.

The smelt from the waters of the Atlantic Coast was intro-

*(Continued on page 28)*



*The 95 ft. dragger "Puritan" before and after launching at Gray Boats, Inc., Thomaston, Me. In the group, left to right, are Capt. Ben Pine, owner, of Gloucester; Malcolm Seavey of Gray Boats; and the vessel's skipper, Capt. John Ribeiro.*

# "Puritan" Launched for Capt. Ben Pine

THE fine-lined 95 ft. schooner type dragger *Puritan* made a graceful maiden descent from the stocks of Gray Boats, Inc., Thomaston, Me., on March 25. Named for the ill-fated schooner *Puritan* of racing fame, the new vessel is owned by Capt. Ben Pine and Miss Ray Adams of Gloucester, Mass. The vessel was christened by 11-year-old Raye Norris, and will be skippered by Capt. John Ribeiro. John Francis will be engineer.

The *Puritan* was designed by Eldredge-McInnis, Inc., and bears a resemblance to the high-line Gloucester dragger *Columbia*. She has a beam of 22 ft. and a draft of 11 ft. The fish hold is 26′ 8″ in length, while the engine room is 20′ 4″, and the cabin 10′. The distance from the forward hold bulkhead to the stem is 28′.

The *Puritan* is framed with 6″ double sawn oak, planked with 2¼″ oak, and decked with 3 x 4 western fir. Accommodations are provided for 8 in the fo'c's'le, one in the pilot house, and 4 in the after cabin.

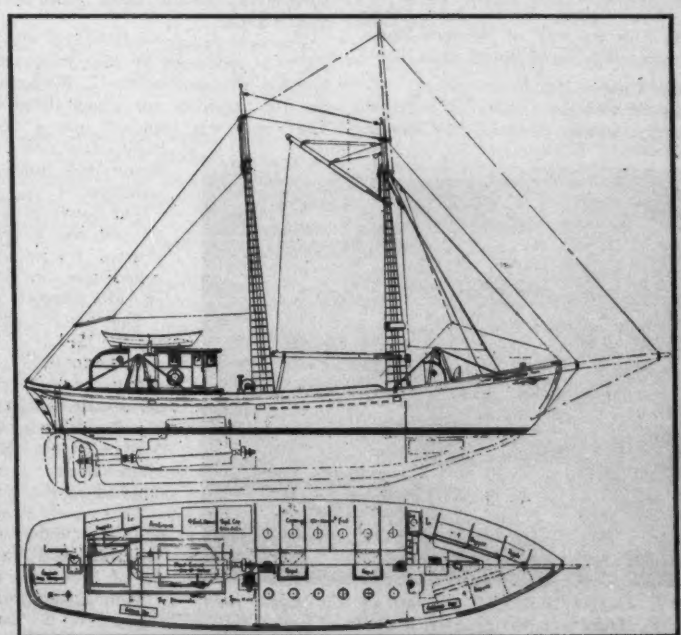
The vessel has a capacity of 185,000 lbs. of fish, and the fish hold is divided into 24 pens with 2 hatches and bunker plates in the outboard pens. The fish hold bulkheads are insulated with 3″ cork, and covered with paper and 2¼″ sheathing.

Four fuel tanks with a total capacity of 5,000 gallons, are located in the engine room. Fresh water is carried under the fo'c's'le deck in a 700-gallon steel tank which has cement coating on the inside.

The deckhouse roof is carried aft, and sloped in streamlined fashion at the stern, to form an enclosure over the after companionway with a deck locker and door on either side. The house extends aft to the rudder post and the quadrant is faced aft with wire leads on deck. The deckhouse has double sheathing, and both the stateroom and pilot house are on the same level over the cabin and engine room trunk.

The trunk is 27″ high and extends 4′ forward of the house to provide space for two engine room ventilators and the New England fish hoist. The Hathaway winch is located between the break and the trunk. The deckhouse has an over-all length of 20 ft., and the engine exhaust pipe is located in a niche in the port side of the stateroom.

The new vessel is powered with a 300 hp. Atlas Imperial Diesel, which turns a 62″ diameter Columbian propeller on a 6″ bronze shaft, and is expected to give the vessel a speed of better than 9 knots. Gulf fuel and lubricating oils will be used.



*Outboard profile and arrangement plans of the 95 ft. schooner type dragger "Puritan", designed by Eldredge-McInnis, Inc., of Boston.*

The vessel is equipped with a Deseco auxiliary set, comprising a Model CE, 2 cylinder, 16 hp. Lister-Blackstone Diesel with 7½ kw. Imperial generator and Kinney clutch operated Curtis air compressor and Goulds water pump, which are driven by multi-V-belts. This equipment and a 5 kw. Imperial generator operating off main engine, 110 volt Willard batteries, and Deseco switchboard were furnished by Diesel Engine Sales & Engineering Corp.

Other equipment includes Shipmate range, Lothrop fog horn, Model AR8707X RCA direction finder, Submarine Signal Co. Fathometer and Westerbeke nets.

Gray Boats have laid the keel of another 95-footer for the same owners, which will be practically a duplicate of the *Puritan*, and will be named *Pilgrim*.

# Gloucester Seiners Make Early Cape May Catch

THE first seined mackerel of the season was landed at Cape May, N. J., by 5 Gloucester seiners on April 15. They were the *Santa Maria*, Capt. Peter Guarrasi, 12,000 lbs.; *Superior*, Capt. John A. Dahlmer, 7,000 lbs.; *Jennie & Julia*, Capt. Paul Scola, 5,000 lbs.; *Frank F. Grinnell*, Capt. Alphonse Mineo, 4,000 lbs; *Alden*, Capt. Frank Mineo, 2,000 lbs. The trip of the *Superior* was her first since being returned by the Navy.

The opening trips this year were 12 days ahead of those of last season. The fish brought 22c per pound.

Capt. Benjamin Curcuru, and his son Sam, of the Producers Fish Company were on hand to handle the catches of the several seiners for which their company is agent.

Although only 6 seiners had originally planned to start off the season, the exceptional success of draggers in running on to mackerel while fishing out of New York, gave added incentive with the result that 14 seiners sailed to Cape May for the opening.

The largest haul of mackerel ever made by a dragger was landed at Fulton Market by the *Lady of Good Voyage*, Capt. Manuel Rocha, who discharged 27,300 lbs. on March 30 along with 70,000 lbs. of other fish. Ordinarily the draggers pick up between 2 and 5 thousand pounds.

### "Spring Chicken" Sunk

The 100 ft. dragger *Spring Chicken*, Capt. Frank Rose, sank off Cape Henry, Va., early this month when the seams in her stern opened up. Her crew of nine was rescued by the Coast Guard. It was the third vessel lost by Capt. Rose in 7 years, the others being the *Natalie Hammond* and *Ruth Lucille*.

The vessel, which had 80,000 lbs. of fish aboard when she went down, was owned by Capt. Rose and United Fisheries Co. She was the former dory trawler *J. M. Marshall*, built in 1915, and had been completely reconditioned and re-equipped for dragging in 1942.

### "Frances C." Rammed

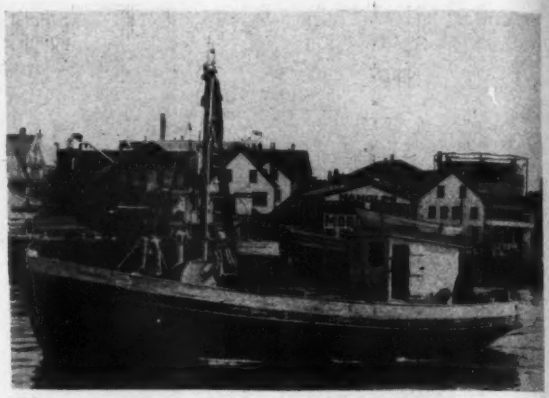
The 50 ft. dragger *Frances C.*, Capt. John Norris, was rammed by a steamer off the New Jersey coast last month, but her crew of 4 was rescued by the Coast Guard, who also towed in the badly damaged vessel.

### Gets Trip Returning from South

The dragger *Joffre*, Capt. Simon P. Theriault, had a profitable return trip from the South where she has been fishing during the Winter. Coming back by way of Western Banks, she caught 135,000 lbs. of groundfish in 40 hours' time.

### Three Boats Change Hands

Capt. John Sinagra has purchased the *General MacArthur*, which he is fitting for mackerel seining. Capt. Carl Ciaramestaro has bought the *American Eagle* which will continue to be operated as a dragger and seiner. Capt. Bert Cluett has taken over the dragger *Nyoda*.



*The 53 ft. Gloucester dragger "Trimembral", Capt. Joseph Virgilio, which was recently repowered with an HMR-602, 100 hp. Cummins Diesel with a 2.5:1 reduction gear, turning a 34 x 27 propeller.*

### Returned Boats

Capt. Matthew Parisi recently landed his first trip in the *St. Anthony* since she was returned by the Navy. Capt. Frank Foote's *Gloucester*, which recently ended her Navy career, is being outfitted for mackerel seining. Three other draggers which are awaiting final release from the Navy are the *Magellan*, *Babe Sears* and *Philip & Grace*.

### Montgomery Building 75-Footer

N. W. Montgomery & Son are framing a 75 ft. dragger, to be named *Phyllis & Mary*, for Capt. Anthony Bertolino of Gloucester. The boat will be powered with a 250 hp. Cummins Diesel with 2:1 reduction gear.

# 60 ft. "Sonya" Launched at Milton Point

MARKING a new epoch in their long history of maritime construction, the first fishing dragger to be constructed by Wm. Edgar John and Associates, Inc., of Rye, N. Y., and the first to be launched in a decade from a shipyard in this area of Long Island Sound, was christened *Sonya* March 25th.

The new dragger, whose keel was laid less than sixty days ago, was sponsored by Miss Peggy Blanken, daughter of Dick Blanken, President of C. G. Wadman Co., Inc., of New York and Provincetown for whom the new vessel was constructed. The vessel was launched into a flood tide at the shipyard basin, after which she was towed to an outfitting dock for engine and deck gear installation.

*Launching party for the 60 ft. dragger "Sonya" at the yard of Wm. Edgar John & Associates, Inc., Rye, N. Y. From left to right, Mr. and Mrs. Charles Malaquais, of Provincetown; Mr. and Mrs. Dick Blanken of Brooklyn, J. S. McCulloh; Mayor Greenville Van Sewall of Rye; Wm. Edgar John; and Miss Peggy Blanken.*

The *Sonya* is 60' long, has a beam of 16' 6" and has a draft of 7'. Heavily constructed, frames are of oak and planking is yellow pine. She will sleep a crew of five and provides complete galley and toilet facilities.

The vessel is equipped with a 4 cylinder, Model 35F 8¾, 120 hp. Fairbanks-Morse main propulsion engine. Her auxiliary set consists of a 1½ kw. generator 50 gallons per minute capacity rotary water pump, and 10 cubic feet air compressor, all driven by a 5 hp. 600 rpm., Model 36A 4¼ Fairbanks-Morse Diesel. Deck gear and winch were supplied by the Hathaway Machinery Co.

This vessel, as well as one of similar design now under construction for Captains John Hall and Francis Captiva, will operate out of Provincetown and New Bedford.

Wm. Edgar John and Associates is also engaged in the construction of tow boats, patrol boats and barges for the United States Army and Navy.

# Maine Shrimp Fishery Expected to Double

THE shrimp fishery has sprung into the big business bracket within a few months and promises to claim a major place in the industry in the future. Last year more than a quarter million pounds of the shellfish were caught out of New Harbor and Friendship in the area known as the Pemaquid Drag. This season the dealers in both towns predict that the catch will double the 1943 figure.

Twelve boats, fishing out of New Harbor, reported catching 12,000 pounds of shrimp daily, for a three day stretch. The individual daily catches have run between a few hundred and 3,000 pounds.

### Lobsters and Herring Lead

Maine fishermen set up a five year record, for February, by bringing ashore 200,001 pounds of lobster. The comparative landings for February for the past five years are: 1940, 135,822 pounds; 1941, 134,405 pounds; 1942, 115,841 pounds; 1943, 79,174 pounds; 1944, 200,001 pounds.

The increased production is attributed to better fishing conditions during the month than in the comparative years, as well as a greater abundance of lobsters.

During the month 1,134,350 pounds of herring were caught by offshore seineboats. Winter seining is a new departure and has kept the canneries going full blast during the winter months. There were no herring landed in February 1943.

Of the 30 species of fish landed in February, 17 showed increases over January. Lobsters and herring led the list of increases. Shrimp jumped from 12,000 pounds to 111,631 pounds.

The total catch for February is valued at $293,564.96 for a $30,879.75 increase over January.

### Goudy and Stevens Repairing Boats

Goudy and Stevens, of East Boothbay, Maine, whose boat shop was partially destroyed by fire on January 9, are back in operation and are doing repair work and building for the fishing fleet.

They have recently completed the rebuilding of the Fred B. Higgins Co. lobster smack *Dove*, and are at present engaged in extensive repairs to the sardine carriers *Conqueror* and *Sylvina Beal*, vessels of the R. J. Peacock Canning Co.'s fleet, and to the vessel *Trident* of the Trident Packing Co. They are also repairing the Sea and Shore Fisheries boat *Lively Lady*.

### New Dragger for Capt. Joyce

Bristol Yacht Building Co., South Bristol, has contracted to build a 60 ft. dragger for Capt. Donald Joyce, of Rockport, Maine, who owns the *Althea J.*

### Sample Starts "Acacia", Rebuilds "Anna C."

Frank L. Sample, Jr., Inc. Shipyard, Boothbay Harbor, has contracted to build a 96′ dragger for Andrew Small of Gloucester. The vessel will be named *Acacia*, and will be powered with a 300 hp. Atlas Diesel.

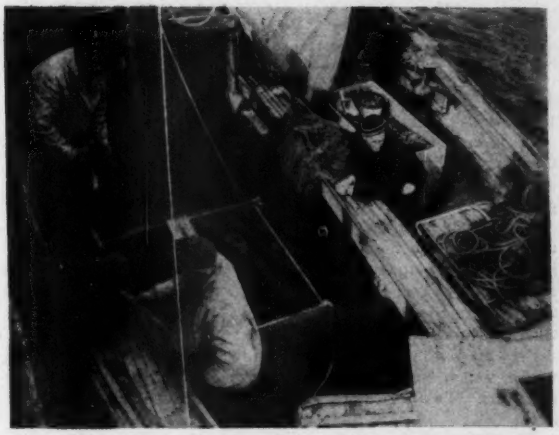
The yard recently rebuilt the 60 ft. Portland vessel *Anna C.*, Capt. Carl Baadee, following her collision with a Government boat. Her starboard side and pilot house were renewed, new equipment including a 32 volt set of Willard batteries, belt driven generator and motor driven pump were installed, and her 100 hp. Wolverine engine overhauled.

### Camden Building Dragger for New Bedford

Camden Shipbuilding & Marine Railway Co., Camden, Me., have laid the keel for a 65 ft. dragger of the yard's design for Capt. Knute Knutesen of New Bedford. The vessel is expected to be completed in four months, and will be powered with a 120 hp. Fairbanks-Morse Diesel.

# Oyster Convention Date Set

THE joint annual convention of the Oyster Growers and Dealers Association and the National Shellfisheries Association will be held on Tuesday, Wednesday and Thursday, June 6 to 8, in the Hotel Chelsea, located on the boardwalk at Atlantic City, New Jersey.



*Two shrimp boats unloading their catch at New Harbor, Me., showing from left to right, Harry McLain, Bill Reilly and Rupert Reilly.*

# Greenport L. I. Business Growing

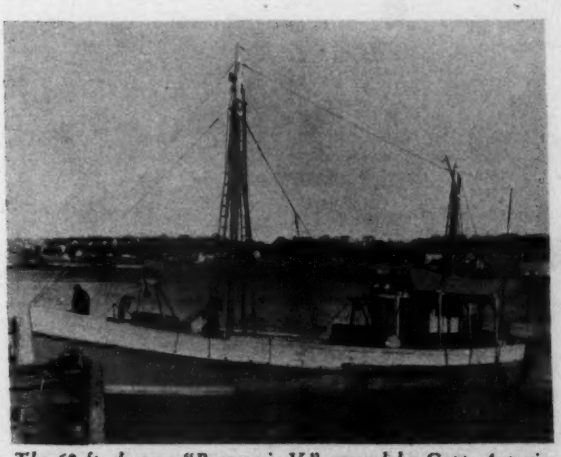
ACCORDING to William Kleb, of the Woodcleft Fish Company, Greenport will again become one of the best known commercial fishing ports along the Atlantic coast. Mr. Kleb, with his partner, Jacob Michael, established their fishing business at Greenport several months ago.

He explained that Greenport possesses many advantages as a fishing port which the commercial fishermen are rapidly taking advantage of. Among these advantages are an excellent, practically landlocked, harbor; close proximity to both ocean and bay fishing grounds; the most modern shipyard facilities; ample wharf facilities for use of commercial fishermen; good hotels; excellent train service to New York City and ample motor trucking facilities for the shipment of fish.

In addition to their fillet plant on the Utz property, the Woodcleft Company utilize the Tuthill Socony Wharf for fishing boats. They purchase fish from deep sea fishermen and trap fishermen. According to Mr. Kleb, since last December, when they started in business there has been a fifty percent increase in the commercial fishing business here, and other companies are becoming interested in making Greenport their headquarters.

### 125-Pound "Fish"

The dragger *Mary C.* came into Bridgeport, Conn., recently with the strangest "catch" of its career—a 125-pound aerial torpedo (unloaded) which Patsy Camerota and John Pal said became entangled in their net while dragging for flatfish 4 miles out in Long Island Sound.



*The 60 ft. dragger "Rosemarie V.", owned by Capt. Antonio Vasques of Gloucester, Mass., which is equipped with a 100 hp. 4 cylinder Wolverine Diesel, Shipmate range, and Hathaway winch.*

# Texas Oyster Program Underway

SINCE an appropriation from State's funds was made last Fall for the purpose of conducting experimental work in oyster cultivation in Texas, the Game, Fish and Oyster Commission has been formulating plans for carrying on this program with Gordon Gunther, the Commission's marine biologist, in direct charge.

Under the program, experimental plants for oyster cultivation through the location of spawning grounds will be established, and experiments will be used to learn the best methods to use along the Texas coast for planting clutch. Proposed sites for such experiments are tentatively located at Corpus Christi, Rockport, and in the Palacious-Port Lavaca area.

Present plans likewise include a complete survey of inland waters which has already been begun by Mr. Gunther and his assistants. Two or more methods of oyster culture will be tried.

The Game, Fish and Oyster Commission will use their boat *K.T.*, a trawler 38′ x 12′, in the dredging operations. It is being converted into an oyster dredge at this time. There is also under construction two barges, 22′ x 12′, which the Commission expects to use in conjunction with the dredge.

As soon as definite plans are drafted and locations for experimental work have been selected and staked, the Commission will furnish the *K.T.* and the barges and will contract with oyster fishermen for labor.

Some beds that are now commercially unproductive will be scarified, using the dredge which will pull equipment similar to that now in use for scarifying worn-out road surfaces. This method is expected to give valuable results. The surfaces of the old reefs will be broken up to a depth of 18 inches, or deeper where possible.

Dr. Paul S. Galtsoff, of the U. S. Fish and Wildlife Service, has made arrangements to come to Texas this Fall to check over the tentative sites selected by Mr. Gunther and the Oyster Commission and to review their plans. He will then make his recommendations for carrying the program to completion.

### Shrimp Trawlers Damaged By Wind

Some 20 shrimp trawlers en route to Port Isabel from Freeport and Aransas Pass were caught in a strong gale in the Gulf of Mexico March 28. The wind, reported unofficially to have blown 40 miles an hour, kept several of the craft from making port for more than 48 hours and contributed to the total destruction of 4 of the boats. No loss of life was reported.

According to unverified reports, the trawler *Curry*, piloted by S. E. George of Aransas Pass and a 73-year-old deckhand as crew, dropped anchor near Corpus Christi Pass when the norther struck, but the strong winds blew the 40-foot craft to Port Isabel with the heavy anchor dragging.

The *Hudson*, piloted by Sam Hoover, Aransas Pass, was not reported safe at Port Isabel until March 30.

Among other boats making the trip who arrived at Port Isabel safely were the *Captain Coral* and the *Dolfin*, owned by Carl Murcovich of Freeport, and the *Bucaneers* and the *Gulf Spray*, owned by General Seafoods Company, Galveston.

### Mackerel Seining Will Be Tried

The Western Shell Fish Company of Aransas Pass in cooperation with B. T. Miller of Florida will undertake experimental work in mackerel seining off Port Aransas as soon as the Spring mackerel run makes its way that far north. This will be the first extensive undertaking of this kind ever to be attempted in Texas waters. Most mackerel caught up to the present time have been taken by shrimp trawler crews with hook and line.

Mr. Miller, who has engaged extensively in mackerel seining in Florida waters, has made two nets, some 1500 feet in length, to use in the Texas experiment. The webbing he used was 6-20 cotton gill netting. The nets will be used on one of the Western Shell Fish Company's boats. A special type of boat is required, and the Company has had one of their shrimp trawlers made over to meet mackerel seining specifications.

Texas' supply of mackerel is estimated to be practically unlimited.

### Low Shrimp Catch

Following the lowest shrimp catch on record for February, the Bay waters opened to shrimping March 1. High winds and storm warnings, however, kept most of the boats at the piers during the greater part of the month. The largest catches were made early in March by Western Shell Fish Company boats, who reported taking 2,700 pounds on one day.

Contrary to last year, fish houses have turned in low catches of shrimp since the first of January. January's take was 136,865 pounds as compared to 649,473 pounds last year. February reached a new low with only 20,217 pounds. Last year 648,851 pounds were taken in February.

*Boat, 34′ long x 9½′ beam, built by R. B. Gillikin, Marshallberg, N. C. Mr. Gillikin advises there was an error in our title under the illustration of the "Kingsley II" in our January issue on page 22. He states that this shrimp trawler was built by him at Marshallberg for Sam Snodgrass of Brunswick, Ga., and that he has built several boats of this type from his own plans.*

## Delaware Shad Study

ENCOURAGED by the complete restoration of the shad runs of the Hudson River and a noticeable improvement in the condition of the Chesapeake Bay shad fisheries, the Fish and Wildlife Service has begun a study of the shad in the Delaware River, where commercial catches are now less than one percent of the 1890 level.

The study will be the first scientific investigation of the shad ever made in the Delaware, which once produced 15,000,000 pounds annually but now yields from 100,000 to 150,000 pounds.

The States of the Delaware River basin—New Jersey, New York, Pennsylvania, and Delaware—have developed a program for the control of pollution in the Delaware which is expected to be put into effect immediately after the war. At the same time, the Fish and Wildlife Service expects to have its recommendations for the restoration of the shad ready to submit to the State Conservation Departments.

Delayed somewhat by the cold Spring, the shad are now entering the Delaware Bay in numbers and the first runs may have reached the spawning grounds in the river.

The study being undertaken this year will be directed by Louella Cable, biologist of the Service, and will attempt to answer three basic questions: the location of the principal spawning grounds, the percentage of eggs that hatch and survive the delicate early stages of life, and the percentage of the runs of adult fish that are taken in the commercial fisheries.

## Norfolk Area Landings

Dragger landings of fish in the Norfolk area during March were 2,498,000 lbs. Scup lead all varieties with 742,000, followed by 600,000 lbs. of porgy, 516,000 of sea bass and 298,000 fluke. On the 13th and 14th over 300,000 lbs. were discharged. In the previous month 2,665,000 were landed, one half of which was sea bass, with the biggest day's total receipts being 457,000 lbs.

# Maryland Expects Good Shad And Herring Season

THE shad and herring season opened in the Maryland waters of the Chesapeake Bay on March 1. The first 2 weeks the weather was cold and stormy and very few fish were caught. The first shad that were sold in the local Crisfield market sold for the highest prices ever known. Roe shad sold for 60 cts. a pound, and buck for 40 cts. Herring sold for 48 cts. a dozen. Later the price for fish declined but was still high. Herring declined more than shad and sold for $14 a thousand. Runboats brought some fish from the Western shore, as fish make their appearance there, like crabs, earlier than on the Eastern Shore.

Most of the fish caught during March and the first of April are caught by traps and pounds. The haul-seiners usually begin operations in the middle of April.

The fishermen are looking forward to a good season. Last year was the best ever, and if there is a good run of fish, there is no reason why this season should not be better than last.

**Trout and Croakers**

Trout and croakers come a little later than shad and herring and they last longer. Last season trout and croakers sold for high prices, and there were large catches, and the fishermen feel sure there will be a good run this season.

**Leasing Oyster Bottoms**

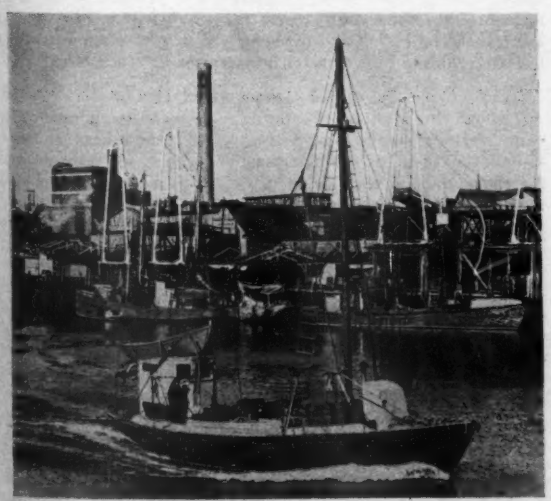
The oyster season practically closed on March 15, when the dredging season closed. Tonging is continued to April 15. Some of the packers continue to operate until the 15th.

This has been a good season for the watermen, dredgers, tongers and runboats. Oysters sold as high as $4.00 per bushel in the shell until the close of the season. Tongers sold for as high as $100 a week. Several runboats have been running oysters from North Carolina.

More watermen are leasing oyster bottoms for planting, and this is one method of increasing the supply of oysters in Maryland. I. Rayner Graham, of Deals Island, leased 10 acres in Big Thoroughfare, an arm of Tangier Sound; George W. North of Crisfield, 15 acres in Flat Cap Creek, near Tangier Sound; W. O. Murry, Mt. Vernon, 5 acres, in Monie Bay.

**Crabbing Begins May 1**

Crabbing season opens on May 1, and the watermen all along the Chesapeake from up-the-bay to the Virginia Capes will present a scene of intense activity. Thousands of people will be engaged in this industry. All are looking forward to a prosperous season and boats and equipment have been put in order for the season.



*The 54' x 14' x 6' "Ariel", which was converted from a yacht to a dragger, by her owner, Capt. Paul Woodbury of Rockport, Mass. The vessel is powered with a 605W, 100 hp. Mack Mariner Diesel with 3:1 reduction gear.*

*Capt. Lloyd W. Parks gathering fish, and son, Capt. Robert W. Parks at wheel of the "June" loaded with fish. Capt. Parks caught 80,000 fish in one day, leaving 5 pounds not fished. The catch was sold to I. H. Leonard, Cambridge, Md.*

Crisfield is the largest soft crab shipping point in the United States. The packers do not depend altogether on the local catchers, but runboats touch all points on the Bay and trucks run crabs from the Sinepuxent and Chincoteague Bay to Crisfield.

Most of the crabbers use the scrape, which drags along the bottom and yields a bushel or more of crabs every few hundred yards when conditions are right, but an easier, more leisurely way to catch them is to trotline with a Tangier canoe and outrigger. The canoe is long and narrow, with a sharp prow and sharp stern, built on a hollow-log keel.

The canoe outrigger for crabbing is simply a pole extending out over the side with a slot in it through which a stout line can slide. The crabber has four or five hundred feet of line, with a buoy on each end, and a piece of tripe tied fast every few feet. One buoy is anchored to the bottom and the line stretched out in the direction the tide runs. Then the crabber returns to the head of the line, slips it through the slot and lets his canoe float down with the tide. As the boat drifts along, the line is lifted from the bottom by the outrigger, and nearly every piece of tripe will have a crab feeding. The crabber dip-nets his catch from line to canoe bottom with rhythmic regularity.

# Virginia Catches Are Promising

DESPITE the fact that sea nettles by the tons are breaking down fish pounds in Pocomoke Sound, Tangier fishermen are making some good catches. Recently Capt. Smith Parks, fishing three traps in the Sound, captured 145 shad and 4,000 herring; and Capt. Peter, in a stand near by, caught 80 shad and 200 herring. These catches are considered fair, but the fishermen expect to do a great deal better when the weather gets warmer.

According to reports, fishermen in the York River are catching as many as 1400 shad to the gear. The big run is on! and it will soon reach Pocomoke Sound, if gannets are a good sign, for the Chesapeake is full of these large fishing birds.

**Soft-Shell Clamming**

Old men and school children are digging clams on the bars at Tangier, and they are doing well. Recently, a boy caught 200 clams on the long bar that skirts Cod Harbor Beach, shucked them and sold them for 50c a quart.

**Trotlining**

Three trotliners, Capts. Hike Charnock, Walter Crockett, and Warren Dize, have left Tangier Island for the trotline grounds at Seaside, Va. They will return home in May when peeler crabbing begins.

**Buys a New Boat**

Capt. Walter Crockett has bought a new trotline boat. She is 36 ft. long, 7 ft. wide, and carries 4 tons.

**"Uncle Guy" Hauls 150 Barrels in 100 Minutes**

A haul of 150 barrels of fish in one hour and 40 minutes was made by one dragnet of the Gloucester trawler *Uncle Guy* a few miles off the Virginia Capes last month. The average weight of a barrel of fish is about 100 pounds.

## Great Lakes Production

*(Continued from page 22)*

duced into Michigan waters from eggs planted in various years from 1906 to 1921. It was first found in Lake Michigan in 1923 and is now to be found in all the Great Lakes. So far it is of particular importance only in Lake Michigan, where a fishery for it has developed rapidly during the last decade to present quantities of several million pounds annually.

Both of these introduced species have been considered by very many people to be a curse rather than a blessing and their extermination has been advocated. There is no very good evidence that attempts to exterminate them would be successful or would prevent their being abundant and in certain respects a nuisance. In Lake Michigan, however, the smelt has come to be highly regarded.

There are data which show a certain amount of migration or spreading of the commercial lake fish, its extent varying with the species. These data are altogether too few to reveal either the general character and the extent of the migrations or the degree of intermixing of local populations. Some hold to the opinion that there are mass movements of the populations of some fish and there are indications that extensive shifting of the fish lengthwise of a lake may occur. For introduced species, such as the carp and the smelt, the data of their spread through the waters of the Great Lakes are of value as indicating extent of migration.

### Variety and Changes in Water Conditions

The differences in the number of pounds of fish per square mile in the various lakes are to some extent associated with depth: Lake Erie with the greatest number of pounds being the shallowest, and Lake Superior with the smallest number of pounds being the deepest. Similarly in Lake Ontario, the number of pounds per mile of frontage for the various parts is largely related to the amount of shallow water found locally, the eastern part of the Canadian shore having both the greatest number of pounds and shallowest water and the central part the least.

Lake Erie produces almost no lake trout and nearly all the blue pikeperch. Lake Superior has been a consistently high producer of lake trout and furnishes only negligible quantities, if any, of carp, catfish, yellow perch, blue pikeperch and sauger. Associated with this contrast there are comparatively high summer temperatures in Lake Erie and low summer temperatures in Lake Superior.

There are doubtless many factors that determine the numbers of each species that a lake produces naturally, including the complex interrelationships of the species. Little is as yet known quantitatively concerning the operation of these factors.

There is evidence of both fluctuating and progressive changes in the water conditions to affect natural productivity in each lake. Both wind and rain, which are outstandingly variable from season to season and from year to year, do affect water conditions, but the manner of their action on the fish populations of the lakes has not yet been made very clear.

Various complaints were received concerning changes in water conditions resulting from man's operations. Man's action in damming streams affects such lake fishes as require the streams for part of their life cycle. Silt from land cultivation is carried into the lower parts of streams and into the lakes, with the possibility of causing not only turbidity but also significant changes in the character of the bottom where it settles. Sewage and various liquid and solid industrial wastes enter the streams and the lakes. The effects are only in part determined. That they are necessarily harmful, as the word "pollution" implies, should not be taken for granted. Sewage may be harmful to life in the water where so concentrated that its decomposition removes most of the oxygen from the water, but as a fertilizer, it may well increase the productivity.

### Fishing Gear

Lake Michigan has the largest number of vessels and boats, as of fishermen, while, excluding Lake St. Clair, Lake Ontario has decidedly the smallest number. Seines are most numerous on Lake Erie and fewest on Lakes Ontario and Superior. Gill nets are used in very large amount on Lake Michigan. Trammel nets are almost entirely confined to the United States side of Lake Erie. Hook fishing is largely confined to the United States side and to the three upper lakes, the greatest amount being in Lakes Superior and Michigan. Most of the pound nets are on Lake Michigan and Lake Huron and on the Canadian side of Lake Erie. All of the trap nets are operated in United States waters and nearly all in Lakes Erie and Huron. United States fishermen use fyke or hoop nets chiefly in Lakes Michigan and Erie. Canadian fishermen use few hoop nets elsewhere than in Lake Ontario.

The use of certain types of fishing gear (e.g., hooks, small-meshed gill nets, bull nets, deep trap nets) has been held to be detrimental to the stock of fish and to the fishery. Any type that is at all efficient is liable to be blamed. The objections made against hooks are (1) that they take small and very large fish as well as the selected sizes taken by the nets and (2) that they require the use of small fish for bait. Certain types of gill nets are said to take fish of undesirable size, or, if extensive, to stop movement of the fish. Impounding nets and seines tend to take fish of many sizes. Large, readily movable trap nets can be used much more widely than the staked pound nets, and therefore may sometimes take too many fish. All the arguments are based upon the presumed effects of removing many fish or of removing fish of a certain size, which can be considered under the heading "overfishing".

### Overfishing

It is well recognized that stocks of fish are not inexhaustible and that the more fish are taken from the water the fewer remain to be caught—until the loss is made good. A larger take by part of the fishermen depending upon a common stock of fish is certain to decrease more or less the take of others. The extent of the decrease will depend upon the number of fish in the stock and upon how many more fish are taken by part of the fishermen.

The size of a stock of fish sets definite limits to the extent of fishing effort that will be profitable under given economic conditions. A long fishing season or many fishermen may make the fishery profitless. With the seasons and the number of fishermen remaining the same, the development of more efficient but more expensive methods may have the same results. Such overfishing should be avoided. There have been numerous instances in the Great Lakes of fisheries having been developed beyond the limits of profitable operation either from the seasonal standpoint or from the long-term standpoint, as in the striking case of the lake herring in Lake Erie.

It is ordinarily maintained that the fish should not be taken on their spawning grounds. It is undoubtedly wise in preventing overfishing to give first protection to the spawning fish that may be more easily taken and thus apt to be overfished and that are so closely connected with replacement of the stock. To be sure how valuable such protection is, it is necessary to know how many fish that will spawn remain after the fishing that is in question and how many spawning fish are required for adequate replacement of stock fished.

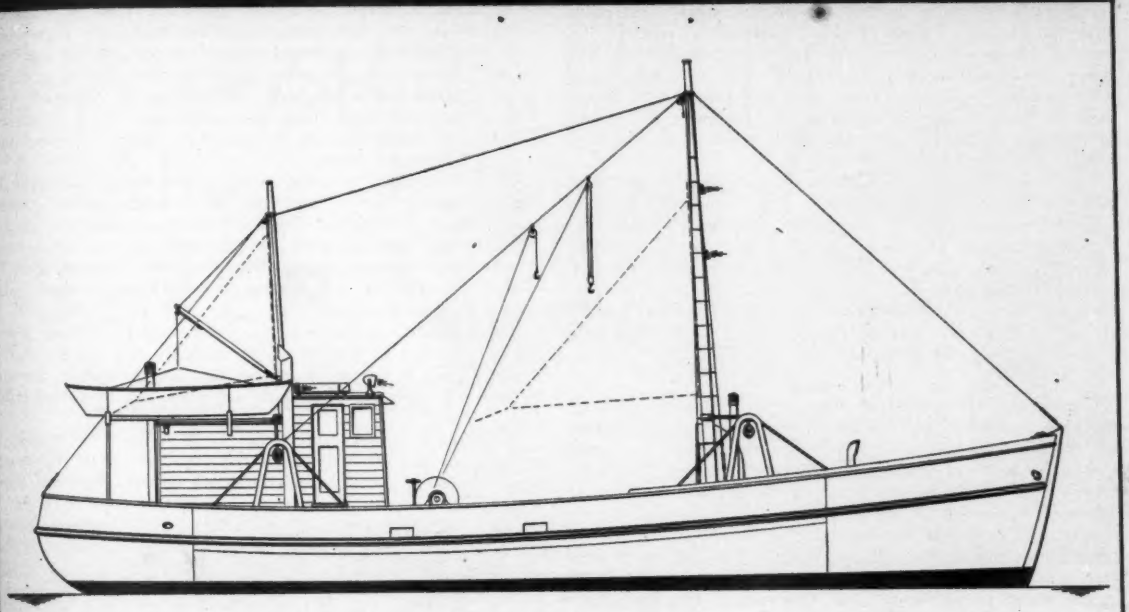
### Sport Fish Versus Food Fish

The development of sport fishing, which has gone on for many years, presents an important conflict in fishery interests. It may be taken for granted that, if the fish are fully utilized for sport and are then eaten, they are more valuable so used than if caught merely for food. But when, as frequently happens, the fish are only partially utilized for sport, it may become a difficult matter to judge the comparative values of the two uses. The facts presented fail to prove that closure of waters to fishing with certain types of gear has been effective in improving sport fishing. More knowledge is required to show what is the best system of regulating fishing for food in any particular water, whose useful fish are only in part taken for sport.

### Fish Culture

There is some divergence of opinion among those in the fishing industry and among those that have been particularly concerned with the subject either as administrators or investigators as to the value of fish culture in maintaining the stock of fish. As yet no proof has been furnished that there is actual increase in the stock of lake fish from such planting of the young. Nevertheless, there is a very general belief among the fishermen that the plantings are effective and there have been repeated requests that more fish should be planted and that the fish should be reared to a more advanced stage.

# RAILWAY ACCOMMODATIONS
## FOR ANY SIZE WOODEN FISHING BOAT



**Construction has been started on this new 65′ dragger for Knute Knutesen of New Bedford.**

**We can now take on a limited amount of new construction. There are no hidden "extras" in a Camden contract.**

# CAMDEN SHIPBUILDING & MARINE RAILWAY CO.

CAMDEN, MAINE

*The Largest Wooden Shipbuilding Yard in New England*

## Chesapeake Catch

*(Continued from page 19)*

licenses issued, so that the intensity of the fisheries may be brought into harmony with the condition of the stocks of fish. Because of war conditions, reduction of the number of fishermen has taken place faster than had been anticipated. As a result, the fisheries last year took 77 percent of the runs, instead of 92 percent as in 1939. Even this rather slight reduction has brought about highly encouraging results. The number of spawning shad last year, and probably the year before, was twice as great as in 1939. This will mean larger runs two or three years from now and progressively larger runs in future years. It represents the beginning of the tide of recovery which, if aided and not hampered, should run as strong as in the Hudson.

The important thing is the demonstration that in the Chesapeake, as in the Hudson, reduction of the fishing rate has been followed by a prompt increase in the abundance of shad. We do not know yet what percentage of the runs the fishermen in the Bay can take with best results. It may be that the present 77 percent fishing rate is low enough to permit full recovery. It is essential, however, to hold the fishing intensity at least at its present level so that we may find out how large a stock can be built up under these conditions.

### Size Limits

Control of the number of fishermen is one tool—probably the most important tool, of the management program needed for the Bay's fisheries. In itself it may be expected to restore the once important fisheries for shad and herring. For other fisheries additional tools, such as size limits, are needed. An outstanding example is the striped bass or rock fish. At the present time young striped bass 11 inches long may legally be taken in Maryland. In Virginia the limit is 10 inches. Striped bass as small as this have not spawned. Furthermore, if left in the water an additional year they would greatly increase in weight and in economic value.

Believing it to be undesirable from every standpoint to take these small fish, the federal government in 1939 recommended to the various Atlantic Coast states that they establish a size limit of 16 inches, measured from the tip of the snout to the fork of the tail. Six states have now adopted the 16-inch law or its equivalent. Among the states that have not yet adopted the 16-inch size limit are Maryland and Virginia. This is especially unfortunate because these states are the chief producing areas for the striped bass along the Atlantic Coast.

Aside from reasons related solely to conservation, there is an impressive economic argument for increasing the size limit for striped bass. Under present conditions, when large quantities of young striped bass are caught, the markets cannot absorb the supply, prices are depressed, and the fishermen of the Bay are deprived of profits they could make from the sale of larger fish.

From the two examples—the shad and the striped bass—you will see what we have in mind when we speak of proper management of the fisheries of the Chesapeake. We know that by appropriate action, guided by scientific research, the fisheries of today can, with few exceptions, be as richly productive as those of the past century.

### Oyster Management

The disintegration of the Maryland oyster industry is directly traceable to our neglect of the basic principles of conservation, and was not caused by natural changes in the quality of the water or of the bottoms of the Bay. The potential productivity of the Chesapeake remains today the same as in the past. In Maryland the inroads of domestic and industrial pollution fortunately have so far been limited. Furthermore, Maryland waters are free from many dangerous pests such as starfish and drills.

The decline in the productivity of shellfish bearing bottoms of the Bay has been the result of the method of exploitation. This has completely disregarded the fundamental principles of conservation. The basic idea of conservation is simple and can be formulated in a few words—you cannot take more than nature replaces through reproduction and growth. For more than a hundred years the oyster bars and reefs of the Chesapeake Bay were subject to fishing without any regard for the rate of natural replenishment. No wonder that many productive grounds became so depleted that their former average productivity of about 40 bushels per acre declined to only a few bushels per year. The depletion of some of these grounds is so great that their self rehabilitation is almost impossible.

It has been established beyond question, however, that the productivity of oyster bottoms can be indefinitely maintained and even materially increased by applying cultivation methods. Thus, private oyster farming has been markedly successful in New England and in the State of Washington. Not only have high production levels been maintained but many thousands of acres of nonproductive bottoms have been converted into fertile underwater farms.

It is immaterial whether oyster bottoms are cultivated by private planters or by the state governments which control and manage the fishery. What is important, however, is that the existing bars or reefs be efficiently utilized to permit maximum harvesting without depleting the resource. This requires introduction of a system of exploitation under a plan of effective management.

Since public opinion is strongly opposed to private planting in Maryland, your State government has no alternative but to enact a system of exploitation of the public grounds which will maintain their productivity on a sustained yield basis.

Shellfishery experts agree that lack of seed oysters is at present the greatest handicap in the development of the oyster industry. It is a well known fact that certain areas are more adaptable to the production of seed oysters than to growing oysters for the market. It is our intention to locate these areas and to find out how to produce more seed per unit area than is obtained under natural conditions.

Good oysters, like good vegetables and other crops, require good care. They should be properly thinned to avoid overcrowding or they may be transplanted to special bottoms for rapid growth and fattening. These bottoms should be located and the conditions under which oysters would rapidly grow and fatten should be recorded and analyzed.

The Fish and Wildlife Service has already perfected plans for establishing field headquarters at Kent Narrows for the upper part of the Bay and at Cambridge for the work to be conducted along the Eastern Shore, Tangier Sound and adjacent areas. Observations on the time of spawning and setting of oysters and their growth on various grounds will be conducted this summer at about a dozen various places in these two areas.

## Mullet for Farm Fish Ponds

IN a search for new and better sources of fish for stocking the thousands of farm fish ponds, the fishery laboratory of the Fish and Wildlife Service at Beaufort, N. C., is conducting promising experiments in transferring mullet, a salt water fish, to fresh water ponds.

This is believed to be the first time in this country that the transfer of a substantial quantity of a relatively large salt water fish to fresh water has been accomplished, although it has been done successfully with aquarium fishes.

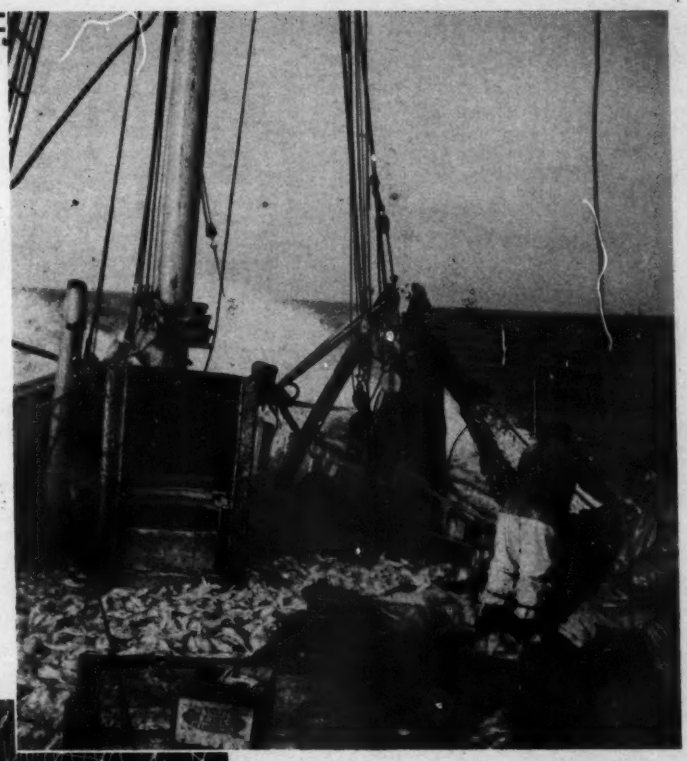
The mullet, which is found in warm waters throughout the world, is able to thrive in brackish, or slightly salty, water and for centuries has been grown in tidal ponds in Hawaii.

First reports from the Beaufort experiments show an astonishingly high production, which was approximately equivalent to 3,000 pounds per pond acre in two years. The normal production of a well-managed farm fish pond is about 200 pounds per acre per year.

The mullet is a forage fish, eating microscopic vegetation, and therefore no subsidiary species for it to feed on need be placed in the ponds in which it is grown as is required when such fish as black bass are used in stocking farm ponds.

Further tests are now being made at the Federal Fish Hatchery at Edenton, N. C. The Beaufort laboratory also is repeating its experiment.

# NETS THAT FISH the SEVEN SEAS



## Durably Made *to withstand* Hard Usage

**Our netting is being used in many parts of the world to produce fish for the Allied Nations. Vast populations must be fed, and you can play an important part. Fish your nets to the maximum — take time to keep them in serviceable condition. You may not always be able to get all the netting you want, but we'll try to meet your most essential requirements with products that withstand hard usage.**

The AMERICAN NET & TWINE Division
*Of The LINEN THREAD CO., Inc.*
60 East 42nd Street, New York City 17
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*Netting Headquarters Since the Year 1842*

*The 45' "Hiram II", owned by Capt. Chris Aiello of New Bedford. The boat has a capacity of 30,000 pounds, and a speed of 8½ mph. She is powered by a Chrysler Royal engine with 4.5:1 reduction gear, sold through Walter H. Moreton Corp., Boston. She is equipped with a Hathaway winch, Shipmate range, 40 x 24 Columbian propeller, Linen Thread nets, and uses Gulf oils.*

## New Bedford Landings for March

(Hailing fares. Figure after name indicates number of trips.)

| | | | |
|---|---|---|---|
| Addie Mae (4) | 56,300 | Hope (2) | 27,000 |
| Agda (5) | 93,500 | Huntington Sanford (3) | 58,500 |
| Alice J. Hathaway (4) | 218,800 | Idlewild II (2) | 13,000 |
| Alice May (1) | 6,000 | Ivanhoe (5) | 153,800 |
| Alva (2) | 13,000 | J. B. Jr. (1) | 11,200 |
| Alva & Estelle (1) | 8,000 | J. Henry Smith (3) | 26,800 |
| Anastasia E. (2) | 21,300 | Joan & Ursula (4) | 227,500 |
| Angeline (2) | 6,200 | Josephine & Mary (3) | 145,900 |
| Anna (1) | 6,500 | Julia K. (2) | 24,900 |
| Anna C. (1) | 5,500 | Liberty (3) | 47,400 |
| Anna M. (3) | 50,400 | Liboria C. (4) | 86,500 |
| Ann & Marie (4) | 16,000 | Little David (2) | 10,500 |
| Anna O. (3) | 72,000 | Little Growler (4) | 187,500 |
| Annie M. Jackson (3) | 29,500 | Madame X (2) | 19,900 |
| A. P. Andrew (4) | 87,500 | Madeline (2) | 27,000 |
| Ariel (1) | 1,200 | Malvina B. (4) | 49,000 |
| Arnold (5) | 65,800 | Marie & Eleanor (5) | 83,800 |
| Barbara (1) | 5,000 | Marie & Katherine (4) | 70,100 |
| Barbara Tee (2) | 7,400 | Marion & Dorothy (1) | 800 |
| Bernice (2) | 10,400 | Marquette (3) | 14,000 |
| Bessie (3) | 24,600 | Martha E. Murley (3) | 123,700 |
| Bethlehem (3) | 27,100 | Mary E. D'Eon (4) | 67,000 |
| Bozo (2) | 15,200 | Mary Grace (4) | 263,700 |
| Cape Ann (4) | 179,000 | Mary J. Landry (3) | 28,000 |
| Carib (2) | 13,300 | Mary M. (6) | 51,000 |
| Catherine & Mary (3) | 87,500 | Mary Tapper (3) | 171,000 |
| Catherine C. (1) | 11,000 | Mayflower (3) | 40,000 |
| Charles E. Beckman (4) | 86,500 | Minnie V. (2) | 33,100 |
| Charles M. Fauci II (3) | 7,800 | Mishaum (5) | 37,800 |
| Christina J. (4) | 102,500 | Morning Star (1) | 5,100 |
| Clara T. (3) | 11,100 | Nashawena (2) | 39,000 |
| Clifton (3) | 63,000 | Nellie (1) | 18,500 |
| Clinton (3) | 18,000 | Noah A. (3) | 31,100 |
| Connie F. (1) | 35,000 | Nobadeer (1) | 16,000 |
| Dagny (5) | 81,400 | Olive Williams (1) | 21,000 |
| Dirigo I (4) | 37,300 | Palmers Island (2) | 17,200 |
| Donald & Johnnie (1) | 8,500 | Peerless (1) | 16,000 |
| Doris (2) | 21,900 | Penguin (3) | 68,000 |
| Dorothy (3) | 23,400 | Priscilla (2) | 14,800 |
| Driftwood (2) | 24,500 | Priscilla V. (2) | 88,700 |
| E-C (1) | 3,600 | Quest (2) | 14,000 |
| Eclipse (4) | 27,800 | Ramona (3) | 35,500 |
| Edith (3) | 54,800 | R. E. Ashley (3) | 169,700 |
| Eleanor K. (1) | 5,000 | Richard & Arnold (4) | 45,600 |
| Elva (6) | 38,900 | Rita (1) | 24,000 |
| Elva & Estelle (2) | 34,100 | Rita B. (2) | 123,000 |
| Emma Marie (5) | 54,300 | Rosie II (2) | 13,000 |
| Etta K. (4) | 71,900 | Russell S. (2) | 37,000 |
| Father & Son (1) | 3,000 | Sankaty Head (3) | 42,600 |
| F. J. Manta (4) | 57,000 | Sea Ranger (1) | 58,000 |
| Fred Henry (3) | 30,500 | Sevenous (2) | 7,500 |
| Gay Head (5) | 52,900 | Stanley B. Butler (4) | 448,300 |
| Gloria (2) | 5,600 | Susie O. Carver (3) | 49,100 |
| Grayling (3) | 10,200 | The Friars (4) | 111,000 |
| Growler (3) | 139,800 | Trio (4) | 30,700 |
| Hazel Jackson (2) | 28,900 | Two Brothers (4) | 28,600 |
| Hazel S. (1) | 18,100 | Viking (4) | 20,700 |
| Heedja (2) | 19,000 | Virginia & Joan (2) | 16,500 |
| Hilda (3) | 26,500 | Whaler (2) | 49,500 |
| Hiram II (3) | 24,500 | William Chesebro (1) | 41,000 |
| H. M. Jackson (1) | 17,500 | Winifred M. (4) | 27,500 |

### Scallop Draggers (Landings in Gallons)

| | | | |
|---|---|---|---|
| Acushnet (1) | 300 | Louis Thebaud (1) | 350 |
| Antonio (1) | 600 | Muriel & Russell (1) | 700 |
| Carol & Estelle (2) | 2,240 | New Dawn (1) | 370 |
| Emily H. (2) | 1,650 | Palestine (1) | 700 |
| Four Sisters (1) | 300 | Shannon (2) | 1,700 |
| Friendship (2) | 2,200 | Viking (1) | 500 |
| Irene & Mabel (2) | 1,550 | Winifred Martin (1) | 500 |
| Jerry & Jimmy (2) | 2,150 | | |

## New Bedford Leads Increase In New England Landings

LANDINGS of fish at New Bedford, Boston and Gloucester, Mass., for the first quarter of 1944 totaled 63,059,041 pounds up from 61,065,543 pounds for the like period of 1943, in spite of the loss of 20 fishing days at Boston and New Bedford in January due to a strike.

New Bedford fishermen led the increases by landing 15,385,495 pounds as against 12,225,790 pounds in the first quarter of 1943. Gloucester also showed improvement with landings of 19,676,069 pounds, compared with 16,630,846 in the previous year. Boston landings were 27,997,477 pounds, compared to 32,208,907 pounds in 1943.

### "Stanley B. Butler" Lands Record Trip

The biggest catch on record was the 150,000 lbs. landed by the *Stanley B. Butler* late last month. The vessel owned by Capt. Olaf Anderson has made several large trips since her return from the Navy.

### "Rosie II" Joins Fleet

The 68' dragger *Rosie II*, formerly of Gloucester, is now owned by Simon Alpert and others of New Bedford, and is skippered by Herbert Clay.

### Palmer Scott Get "E" Renewal

The Palmer Scott & Co., Inc., boatyard has been notified that they have been awarded the second renewal of the Army-Navy "E" for "meritorious service on the production front", which entitles them to fly a two-starred pennant.

### "St. Anthony" Being Outfitted

The *St. Anthony*, owned by Alfred Costa of New Bedford, and recently completed by Stamford Marine Construction Co., Stamford, Conn., is being fitted for fishing at Hathaway's. The vessel is powered with a D-13000, 100 hp. Caterpillar Diesel, with 2:1 Twin Disc reverse and reduction gear.

## "Columbia" and "Cormorant" Share High-Line Honors

THE Gloucester dragger *Columbia*, which topped the fleet in production in 1943, broke all records for a single month's landings in March, when she landed a total of 891,715 pounds. With this heavy production she was able to top the landings of Boston's famed *Cormorant* by 55,000 pounds.

The *Cormorant*, not to be outdone, landed a fare which topped all records for an individual trip. On April 7, after a 9 day trip, she landed 445,687 pounds of groundfish. The record she broke had stood for more than a quarter of a century. The previous record was made by the steam trawler *Walrus* in 1918. The fare of the *Walrus* had amounted to 434,734 pounds.

### Reid Building and Refitting

Willis J. Reid & Son, Winthrop, Mass., are building a 64 ft. dragger for Capts. Frank and Peter Bertolino of East Boston, which will be powered with a 135 hp. Cummins Diesel.

The *Vagabond*, which was recently returned by the Government, and is now owned by Lawrence Scola, Jr., is being re-equipped for fishing by Reid. She will be repowered with a 200 hp. Atlas Diesel, and will operate out of Portland.

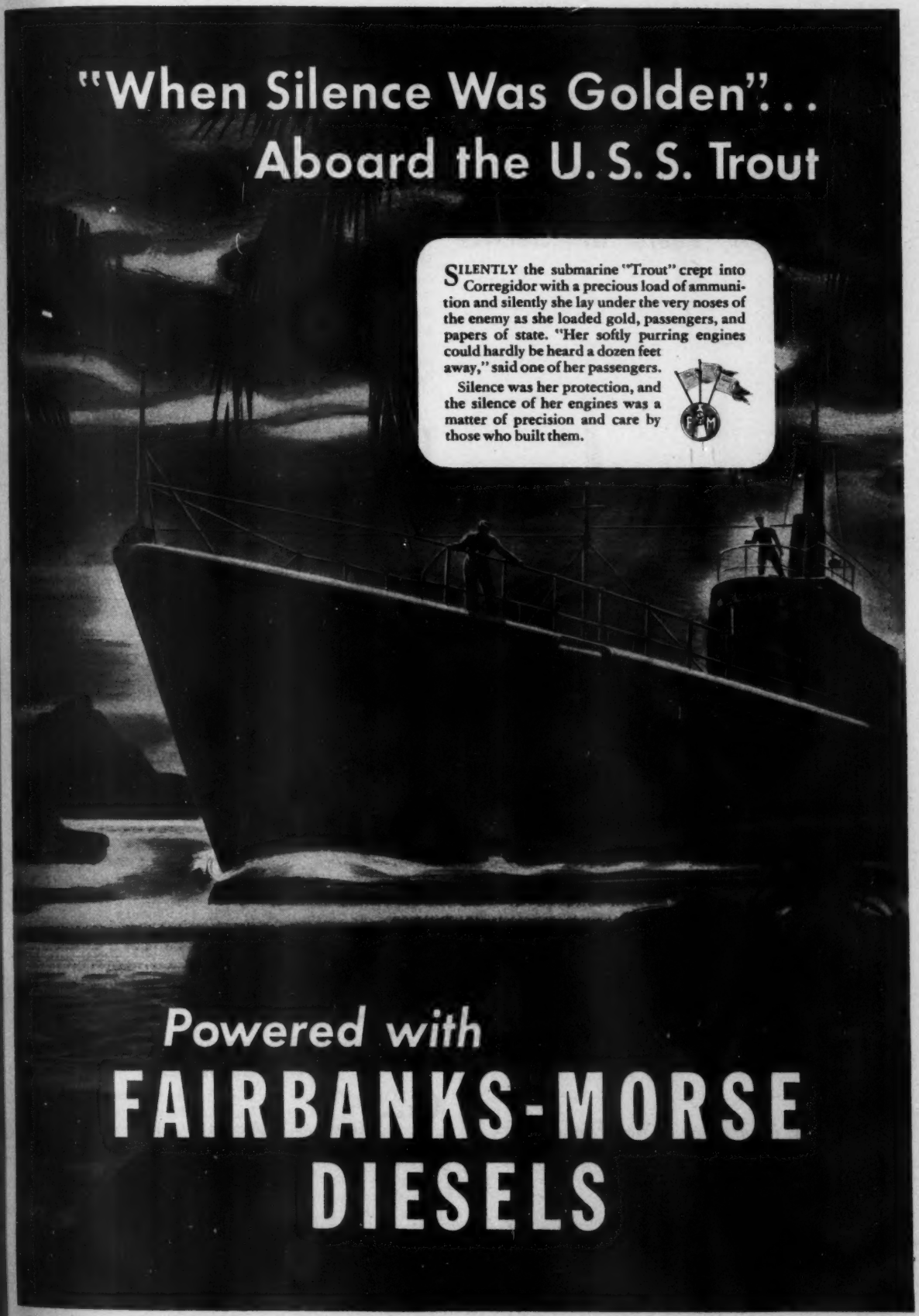
The yard is overhauling the 65' *Alphonso*, owned by Paul Graffeo of Boston, erecting a new deckhouse, and installing a new 100 hp. Atlas Diesel, shaft log and rudder post.

### Equipped with New Pumps

Marine Products pumps for bilge and deck service, sold through J. H. Westerbeke Corp., Boston, have been installed in the Boston hookers *St. Theresa*, *Savoia* and *Acme*, and the New Bedford dragger *Little Growler*.

### Usen Buys "Theresa D."

The 80' dragger *Theresa D.*, which started fishing in January, has been purchased by Trawler Squantum, Inc., of which Irving Usen is President and Treasurer. Capt. Ben Reed will continue as skipper.


"When Silence Was Golden"...
Aboard the U. S. S. Trout
SILENTLY the submarine "Trout" crept into Corregidor with a precious load of ammunition and silently she lay under the very noses of the enemy as she loaded gold, passengers, and papers of state. "Her softly purring engines could hardly be heard a dozen feet away," said one of her passengers.
Silence was her protection, and the silence of her engines was a matter of precision and care by those who built them.
Powered with
FAIRBANKS-MORSE
DIESELS

# WOLVERINE DIESEL

## In Dragger-Scalloper "Edith"

## RUNS PERFECTLY

## *After Ten Years of Service*

The 55 ft. "Edith", owned by John Mortensen, of New Bedford, is a typical fisherman that keeps fishing in good weather and bad. Year after year, she's been successfully plying to the grounds, for yellowtail dragging or scalloping.

Her 75 hp. Wolverine Diesel power plant has given dependable service for 10 years; and, according to skipper Martin Mortensen, the engine "runs perfectly".

●

Dependable, satisfactory service is typical of Wolverine engines. Their sturdy construction, simplicity of operation, and all-round economy make them ideal for all kinds of fishing work.

*There is a Wolverine Diesel for Every Fishing Power Requirement*

**Wolverine Motor Works Inc.**

**Union Ave. Bridgeport 2, Conn.**


## Mississippi Oyster Production Shows Increase

THE report of the Mississippi Seafood Commission to the State Legislature at its session just ended shows total collections for the two-year period from July 1, 1941, to June 30, 1943, of $37,929.85, which included $26,010.97 from the oyster tax and $2,789.37 from the shrimp tax and privilege taxes and licenses of $8,866. Total expenditures for the period were $34,285.

During the period the Commission returned to public reefs 15,201 barrels of shells and the Commission states that a recent government survey shows that while oyster production in the United States is now only half as large as it was 50 years ago, Mississippi is one of five states wherein the production increased. It produced 7,706,400 pounds of oyster meat in 1939.

"Government experiments indicate that each barrel of oyster shells planted in a suitable area will produce between four and five bushels of marketable oysters at the end of the third year. Mississippi requires 25 percent of all shells taken from public reefs to be delivered to the Commission, which returns them properly planted."

## Florida Regulations Amended

FISHING for any variety of seafood (and sponging) will be permitted at all times in bays, rivers, sounds, lagoons, and cuts, provided vessels so operating keep well clear of channels, inlets and cuts leading to the open sea; and provided further that no fishing at night shall be permitted within one half (½) mile of bridges, causeways or waterfront facilities prescribed by the Coast Guard Captain of the Port; and also provided that vessels operating at night reduce the visibility of their lights to a minimum.

Fishing from outside beaches will be permitted at all times provided individual fishermen who desire to operate on said beaches between sunset and sunrise are equipped with regular Coast Guard identification cards and carry special permits for such fishing issued by the Captain of the Port of the section concerned. Persons fishing from outside beaches at night shall not use flares or other excessively bright lights, or any type of signaling device. Fishing from beaches will not be permitted in restricted or danger zones established by any branch of the armed forces or in the immediate vicinity of military establishments, or in any waterfront area prescribed by the Captain of the Port.

### Kingfish Migrate from Key West

The kingfish have left Key West for their spawning grounds. On their way they stopped at Sarasota for a brief visit. No one seems to know where they go to spawn, but they will come back down the east coast of Florida when cool weather returns.

### Closed Season for Crayfish, Crabs

A four-month closed season on taking stone crabs and crayfish from Florida waters started March 21.

### New Boat by Nix for Toomer

The first of two prawn boats being built for E. J. Toomer of Thunderbolt, Georgia, by the Nix Boat Works, St. Augustine, Fla., was expected to be launched late this month. The boat will be named *Thunderbolt*, and will be powered by a D-13000 Caterpillar Diesel. She will be 56 feet in length, and will have a 16-foot beam.

## Georgia Shrimping Regulations To Be Enforced

GEORGIA'S game and fish laws have been held constitutional by the State Supreme Court in setting aside an injunction restraining Dr. E. F. Creaser, State Coastal Fisheries Supervisor, from enforcing shrimp fishing regulations.

The decision held that the state game and fish laws did not violate the state and U. S. constitutional provisions in authorizing the confiscation of fish and game illegally taken and disposing of them as gifts to charitable institutions.

The injunction had set forth that 3 shrimp boats had been seized and "shrimp of considerable value" confiscated. The petition contended that the shrimp were taken outside the boundaries of the state's jurisdiction.

# *Read this letter... it can solve your problem-*

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P. O. BOX 1693
BOSTON, MASSACHUSETTS

*Superior Lubrication*
*Controlled Corrosion*
*Electrolysis Elimination*
*Filtration*

March 28, 1944
(Dictated March 27)

Sudbury Laboratory
South Sudbury
Massachusetts

Attention - Mr. H. J. Atkinson, Director.

Gentlemen:-

We recently chemically descaled the waterjackets of a 900 H.P. Cooper-Bessemer marine engine that had used salt water cooling for nearly fifteen years. This engine was being changed to fresh water cooling. Usually when engines are chemically descaled and changed to what is called a "closed system" it takes at least three months to clear residues to a point where FRESH cooling water becomes perfectly clear.

Imagine our surprise to find that after only ten days at sea this 900 H.P. engine returned from this first trip with the water crystal clear in the gauge glass of the expansion tank! There was absolutely no sign of discoloration, and the system carries 750 gallons.

We attribute this condition to the use of two gallons of Aqua-Clear simply poured into the expansion tank before the ship was sent to sea on its first trip after the change from salt to fresh water. Aqua-Clear coated the inside of the entire system with a microscopic film which immediately stopped all further chemical reaction and prevented further corrosion!

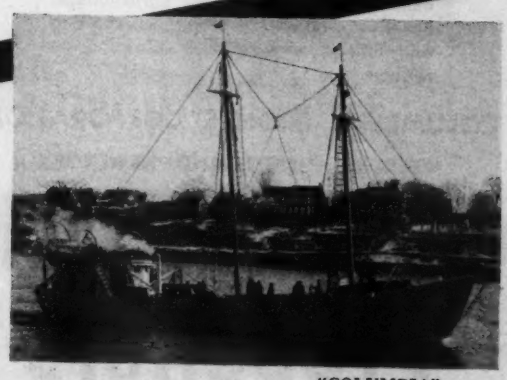
When you first told us about Aqua-Clear we were rather doubtful about its place in the marine field, although we knew what it would do in water tanks. Our doubts, however, did not concern the technical values of Aqua-Clear, but the question of correct useage according to directions, by owners and operators, was uppermost in our mind. However, our experience with the above engine has so convinced us of the value of Aqua-Clear that we are more than pleased to introduce such an important item to our customers.

Yours very truly,

HAMILTON ENGINEERING COMPANY

BY R. H. Martin
Captain R. H. Martin
General Manager

RHM/RHM



"COLUMBIA"

*for further information, write*

# SUDBURY LABORATORY

**504 DUTTON ROAD**
**SOUTH SUDBURY, MASS.**

Maine built with homeport Edgartown, Mass., Capt. Jared Vincent put the Priscilla V. into commission last September. A good sized dragger, heavy and compact construction, the Priscilla V. swings a 44 x 34 Columbian wheel and monel shaft to insure best performance. Specify COLUMBIAN propellers, shafting and fittings on your fleet. Catalog on request.

COLUMBIAN BRONZE CORPORATION

FREEPORT, LONG ISLAND, NEW YORK

COLUMBIAN Propellers

★ Let's All Buy More Bonds ★

## Hoek Succeeds Tucker

*Percy Hoek, new executive secretary of Long Island Fishermen's Association.*

ALFRED TUCKER, of West Sayville, for the past 10 years executive secretary of the Long Island Fishermen's Association, is now Assistant Superintendent of Marine Fisheries of the State of New York. Mr. Tucker will serve as an assistant to James H. Hildreth of East Hampton, who is Superintendent of Fisheries. The appointment was made by Conservation Commissioner John White.

The area under the control of the department includes the waters south of the Island of Manhattan, Princess Bay, Raritan Bay, and those Long Island waters which comprise the Marine District. Mr. Tucker will work out of the State Office Building at 80 Centre Street in New York City. His duties will be supervisory in nature. They will deal chiefly with those parts of the Conservation Law which pertain to fish and shellfish, and he will concern himself not only with law enforcement, but with the propagation and protection of marine life.

Percy Hoek, of West Sayville, has been appointed executive secretary of the Long Island Fishermen's Association to succeed Mr. Tucker. He has been secretary to Mr. Tucker since the Fall of 1935 and has been treasurer of the Association since the Spring of 1938. Thus the work of the Association is thoroughly familiar to him.

All the facilities and service rendered in the past will be continued. It is confidently expected that the Association will continue to grow in value and worth to the industry.

## Hamilton Engineering Distributing Cuprinol and Aqua-Clear

CAPT. R. H. MARTIN, general manager of Hamilton Engineering Co., 39 Commercial Wharf, Boston, Mass., has been appointed distributor of Cuprinol and Aqua-Clear for the fishing industry. Cuprinol is a preservative for prolonging the life of nets and rope, as well as wood used in boat construction, lobster pots and tanks, wharf piling, etc. Aqua-Clear is a preparation for treating circulating water in fresh water engine cooling systems and the water in fresh water tanks in order to eliminate corrosion.

Hamilton Engineering Co. are specialists in corrosion prevention and elimination in marine engines, as well as designers and distributors of fuel and lubricating oil filtering systems. They install all types of equipment to meet the individual requirements of various vessels.

Capt. Martin pioneered the filtration of lubricating oil on heavy duty Diesels in the fishing industry with Deluxe filters a number of years ago. Since then his company has taken direct manufacturers' agencies for Deluxe, Commercial, Michiana, and Nugent filters. The company carries a complete line of filters and refill cartridges of all leading manufacturers, and in redesigning installations they often make trade-in allowances on filtering equipment that is in usable condition. They hold rigidly to their motto—"We filter anything—anywhere". Their latest installation of special design has been used by the owners of the new dragger *M. C. Ballard* on her new Enterprise engine, recently delivered by the W. A. Robinson Shipyard at Ipswich."

Among numerous services offered by the Company are electrolysis elimination and chemical descaling of waterjackets and condensers. Aurand cleaning tools are supplied for their Hengco method of controlled corrosion, where steel in tanks or hulls becomes rusted to a point where "scaling" is necessary. The Aurand Model "M" tool strikes the surface 100,000 times a minute and is about twice as efficient as former methods because of the speed and "even" surface that is readied for coating.

# Learn something about your War Bonds from this fellow!

THE BEST THING a bulldog does is HANG ON! Once he gets hold of something, it's mighty hard to make him let go!

And that's the lesson about War Bonds you can learn from him. Once you get hold of a War Bond, HANG ON TO IT for the full ten years of its life.

There are at least two very good reasons why you should do this. One is a patriotic reason . . . the other a personal reason.

You buy War Bonds because you know Uncle Sam needs money to fight this war. And you want to put some of your money into the fight. But . . . if you don't hang on to those War Bonds, your money isn't going to *stay* in the battle.

Another reason you buy War Bonds is because you want to set aside some money for your family's future and yours. No one knows just what's going to happen after the War. But the man with a fistful of War Bonds *knows* he'll have a roof over his head and 3 squares a day no matter *what* happens!

War Bonds pay you back $4 for every $3 in 10 years. But, if you don't hang on to your Bonds for the full ten years, you don't get the full face value, and . . . you won't have that money coming in later on when you may need it a lot worse than you need it today.

So buy War Bonds . . . more and more War Bonds. And then *keep* them. You will find that War Bonds are very good things to have . . . and to hold!

# WAR BONDS to Have and to Hold

*The Treasury Department acknowledges with appreciation the publication of this message by*

**Atlantic Fisherman**
**Goffstown**
**New Hampshire**

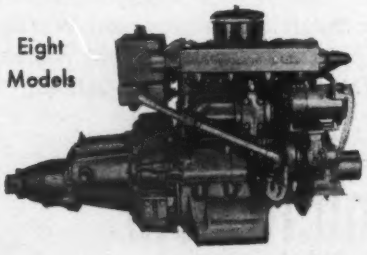
# Will you FISH or FIDDLE?

It's all right for a motor mechanic to put in hours tinkering with an engine, but a fisherman has better use for his time.

Equipping your boat with an OSCO-MARINED Hercules Diesel is A-1 insurance against *your* fuming over a sick engine while there's profit-producing work to be done.

OSCO starts out with a Hercules Diesel of *proven* efficiency, ruggedness and economy; then re-engineers it to meet the *special* conditions encountered at sea by incorporating a fresh water cooling system with full cylinder length jackets, bronze heat exchanges and manual temperature controls.

Eight Models



2 cyl.—24 hp, 28 hp, 30 hp.
4 cyl.—62 hp, 70 hp, 75 hp.
6 cyl.—77 hp, 83 hp.

*Write for Catalog*

OSCO MARINED MOTORS
HERCULES (Diesels) and FORD (Gas) Converted to Marine Use.
OSCO MOTORS CORP.
2020 E. Orleans St.
Philadelphia 34, Pa.
Dept. G

*Gordon Lefebvre, president of Cooper-Bessemer Corp., receives "E" pennant from Rear Admiral Thomas B. Richey, USN. The burgee was hoisted to fly with the Company's Maritime "M" and Treasury Department's Minute Man Flag.*

## Bettering Deckhouses

*(Continued from page 20)*

light t & g, with canvas laid in heavy paint between layers, the second layer laid in heavy paint on the canvas, and elastic composition laid in the grooves of at least the second layer of plank. This construction will mean a somewhat heavier house but the results will be worth while. If desired, the second layer of plank may be paneled, and in that case regulation paneling may be used with elastic composition in the joints, or strips may be nailed over the outside of the t & g outer layer in a way to imitate paneling.

Extreme care must be used in the design and construction of windows and doors to insure watertightness. Where watertightness is not possible, a suitable system of troughs must be fitted with proper drains, these drains being so built that boarding seas will not back up through them. Incidentally, deckhouse doors should be built to open out with the hinges on the forward side. I like the Dutch type deckhouse doors, but they should not be used unless very heavy, and then they are apt to leak in a driving sea.

If avoidable, a spar should not run up through a deckhouse for it is apt to cause trouble of one kind and another. I know of a well built 40 ft. power boat with a signal mast of some size running up through the wheel house, this mast being wedged in a partner where it passed through the top of the house. The vibration of the spar, the whip of it, shook the whole house loose after a couple of years. The only solution that I have been able to find is to leave the spar free when it passes through the house top, without wedging and with an inch or so of clearance all of the way around, then stay the spar well.

Generally houses of any appreciable size will be ceiled inside, frequently with t & g stock. In this case the inside ceiling should run opposite to the outside planking. For instance if the outside plank is horizontal the ceiling should be vertical, this for additional strength. If the outside of the house is doubly planked, the inner plank should be diagonal and I rather prefer the outer plank to be horizontal with the tongue on the top of the plank.

## Addition to Briddell Factory

CONSTRUCTION is underway on a sizeable addition to the Chas. D. Briddell, Inc. factory in Crisfield, Md. This addition approximates 15,000 square feet of factory floor space, and is being constructed of brick and steel, joining the North end of the present plant. It also extends in the rear of the old factory to make space for more manufacturing and storage facilities.

A part of the new building will be two stories high, and will contain a modern warehouse, a new receiving and shipping department, and additional manufacturing space. It is designed to permit a better flow of materials to the factory, and a smoother current of completed products.

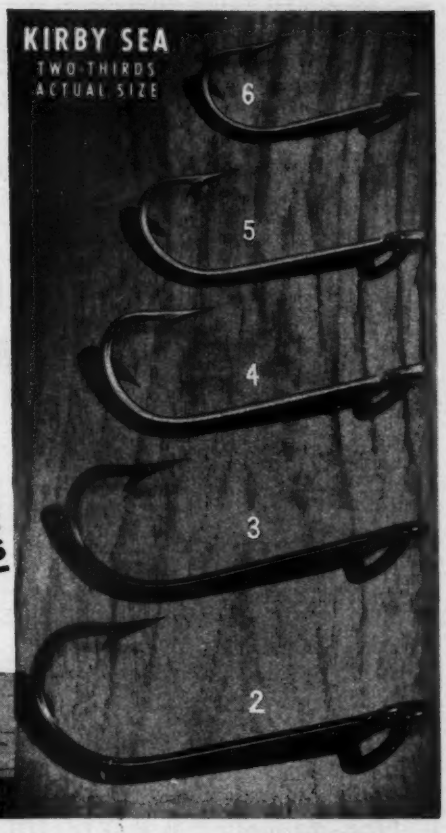
Also provided will be a bigger press and forging shop. The grinding and polishing department will be enlarged, and there will be a new set-up for a larger machine shop and tool room.

# PFLUEGER
(PRONOUNCED "FLEW-GER")
# FISH HOOKS
## *Steel That Holds Sharp Points*

Pflueger Fish Hooks are made from the toughest steel available. They are accurately formed and pointed needle sharp. Then they are scientifically hardened and given a smooth finish that resists rust and corrosion. That's why Pflueger Fish Hooks save time, work and money. Ask your dealer or supplier for Pflueger Hooks—made from 80 years of fish hook experience. If he does not have them, write us for the name of someone who can supply you.

THE ENTERPRISE MFG. CO.
AKRON, OHIO

BACK THE ATTACK
WITH WAR BONDS




PFLUEGER A GREAT NAME IN TACKLE



*Distributors for the Fishing Industry*

**CUPRINOL**
Preservative for Nets, Rope, Wood

**AQUA-CLEAR**
For Treatment of Circulating Water in Fresh Water Cooling Systems and Drinking Water Tanks

•

*Other Products and Services:*

Filtration with Deluxe-Commercial-Michiana and Nugent Filters

*Full Line of Refill Cartridges, with Service for all Leading Filter Manufacturers*

Luber-Tone for "Sticky" Rings and Valves in Diesels

Electrolysis Elimination installations

Chemical Descaling of Waterjackets and Condensers

Aurand Cleaning Tools for Hengco Method of Controlled Corrosion

**HAMILTON ENGINEERING CO.**

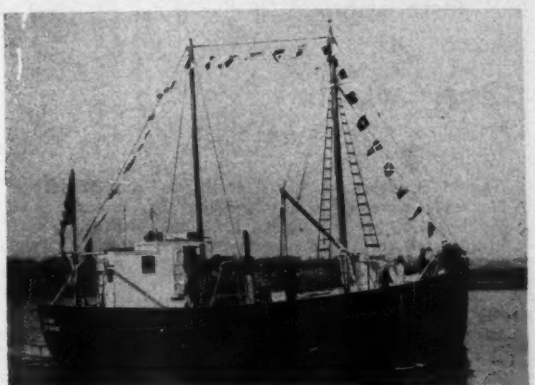
*Marine Consultants*

Capt. R. H. MARTIN, Gen. Mgr.

39 Commercial Wharf BOSTON, MASS. Tel. CAPital 3676



## Ready to Fish When Launched



Fishing boats like the "Sea Hawk", built by Palmer Scott, are delivered complete with all equipment installed at the yard. Time-lag between building and outfitting is eliminated, and you start making money sooner. An expert organization is available to meet your requirements in building any type vessel up to 100 ft.

ARMY E NAVY

*Complete Facilities for Construction and Repairs*

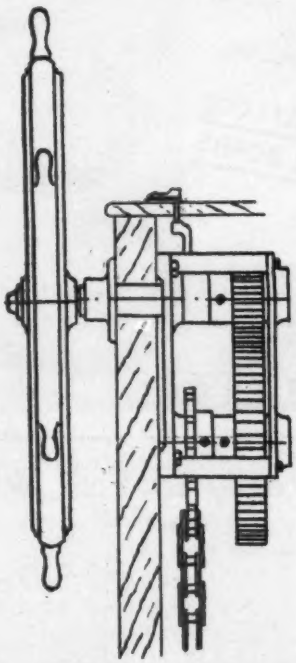
**Palmer Scott & Co., Inc.**
NEW BEDFORD, MASSACHUSETTS

"Carol and Estelle"
and
"Bobby and Harvey"
equipped with
EDSON STEERERS
AND DECK PUMPS

Edson No. 3
Geared
Reduction
Sprocket
Steerer

•

All Bronze
Non-magnetic
Bulkhead
Installation
with
36" Wheel



The 71 ft. draggers "Carol & Estelle" and "Bobby & Harvey", were recently completed by Bristol Yacht Building Co., So. Bristol, Me. for the New Bedford fleet. Both vessels are furnished with the Edson steering equipment illustrated above, as well as Edson non-chokable deck pumps.

For modern, efficient steering and reliable pump service on your new boat, specify Edson equipment. Available in sizes and types to meet the requirements of all fishing boats. Backed by 83 years experience in serving the needs of successful operators.

COMPLETE STEERING EQUIPMENT

Wheels-Quadrants
Chain-Sheaves
Shock-Absorbers

EDSON NON-CHOKABLE BILGE PUMPS
Hand Operated in Four Sizes

The EDSON Corporation
49 D Street South Boston, Mass.

## Fulton Market Wholesale Prices

| Species | Mar. 1-11 | Mar. 13-18 | Mar. 20-25 | Mar. 27-31 |
|---|---|---|---|---|
| Alewives | .. .. | .. .. | .04-.05 | .01½-.04 |
| Bluefish | .22½-.50 | .30-.60 | .40-.57½ | .23-.45 |
| Butterfish | .25-.25 | .. .. | .. .. | .12-.12 |
| Codfish, mkt. | .11½-.16 | .12½-.15 | .12½-.16 | .12-.15 |
| Codfish, stk. | .14¼-.23 | .16-.23 | .17-.23 | .12-.23 |
| Croakers | .. .. | .23-.23 | .. .. | .20-.25 |
| Dabs | .. .. | .. .. | .. .. | 4.00-4.00 |
| Eels | .25-.30 | .. .. | .20-.32 | .22-.30 |
| Flounders | .05-.18¼ | .07-.17¾ | .05-.18 | .04-.18¼ |
| Fluke | .13-.28 | .16-.32 | .20-.30 | .25-.28 |
| Haddock | .11½-.17 | .14-.16½ | .12½-.17½ | .13½-.16 |
| Hake | .. .. | .13½-.16 | .13½-.14½ | .14-.14 |
| Herring | .. .. | 4.00-20.00 | 10.00-18.00 | 4.00-5.00 |
| Kingfish | .18-.29 | .. .. | .32½-.38 | .35-.35 |
| Mackerel | .. .. | .35-.36 | .. .. | .. .. |
| Mullet | .14-.16 | .18-.20 | .16-.17 | .05-.17 |
| Pollock | .11½-.20½ | .14¼-.16¼ | .12-.20 | .11½-.16¾ |
| Pompano | .60-.70 | .. .. | .75-.80 | .45-.75 |
| Red Snapper | .35-.35 | .. .. | .35-.45 | .40-.42 |
| Scup | .18-.20 | .09-.18 | .10-.16 | .15-.16 |
| Sea Bass | .11-.25 | .20-.32 | .20-.32 | .23-.25 |
| Sea Trout, g'y | .. .. | .14½-.40 | .40-.40 | .. .. |
| Sea Trout, spt. | .25-.47½ | .40-.50 | .20-.50 | .25-.48 |
| Shad | .22-.55 | .18-.60 | .12½-.45 | .14-.40 |
| Smelt | .28-.50 | .12½-.48 | .15-.50 | .12½-.50 |
| Sole, g'y | .14½-.16½ | .14-.17 | .14-.17 | .15½-.17 |
| Sole, lem. | .21½-.25¼ | .21-.37½ | .21-.23 | .20-.24½ |
| Spanish Mack'l | .17½-.32½ | .20-.42 | .25-.38 | .22½-.28 |
| Striped Bass | .25-.35 | .23-.38 | .21-.30 | .20-.25 |
| White Perch | .08-.15 | .20-.20 | .06-.28 | .04-.22 |
| Whiting | .06½-.08 | .07-.08 | .07-.08 | .07-.08 |
| Yellowtails | .11¼-.15½ | .11½-.15½ | .11¼-.15½ | .11-.15½ |
| Clams, hard | 3.50-18.00 | 4.00-18.00 | 3.50-16.00 | 3.00-13.00 |
| Clams, soft | 4.50-5.50 | 4.50-5.00 | 2.00-6.00 | 3.50-4.50 |
| Conchs | 4.50-6.50 | 3.50-6.50 | 4.00-6.50 | 3.50-5.50 |
| Crabmeat | .50-1.70 | 1.15-1.75 | 1.00-1.75 | 1.20-1.85 |
| Crabs, hard | 3.00-3.50 | 3.00-5.50 | 5.50-5.50 | 5.50-5.50 |
| Frogs Legs | 1.25-1.50 | 1.65-1.65 | 1.65-1.65 | 1.60-1.60 |
| Lobsters | .73-.90 | .75-1.00 | .80-1.10 | .82-1.10 |
| Mussels | 1.25-2.00 | 1.50-2.00 | 1.50-2.00 | 2.00-2.00 |
| Shrimp | .22-.45 | .24-.38 | .22-.38 | .26-.30 |
| Squid | .05-.19 | .08-.18 | .05-.18 | .15-.15 |

### Fishery Council Reaches Large Audience

Publicity material furnished by the Fishery Council appears in many stories which feature seafood. Among magazines carrying such feature stories currently are: Harper's Bazaar, Good Housekeeping, Woman's Home Companion, and Gourmet. Among newspapers featuring seafood recently are Philadelphia Dispatch, Brooklyn Eagle, New York Herald-Tribune, World Telegram, and Journal American.

## Spalding, Superior Works Manager

JOHN D. SPALDING has been named works manager of the Superior Engine Division plant of The National Supply Company at Springfield, Ohio.

Educated at Carnegie Institute of Technology in mechanical engineering and Duquesne University Law School, Mr. Spalding joined the National organization as plant engineer at Carnegie, Pa., plant in 1923.

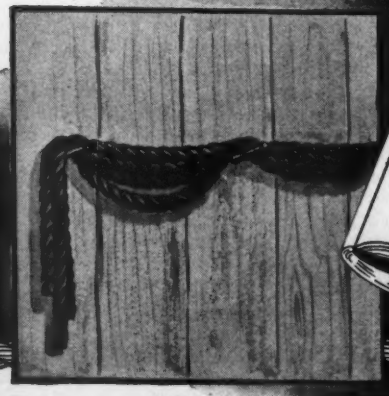
*John D. Spalding*

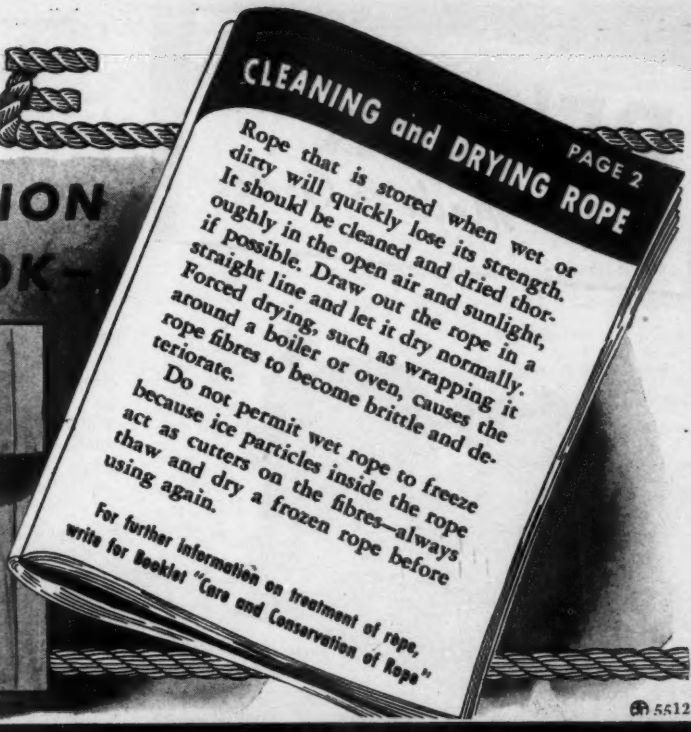
In 1931 he was transferred to the Toledo plant as assistant district engineer, and then on to the Torrance, California plant as patent engineer.

In the 13 years of service at Torrance Mr. Spalding served as Assistant to the Vice President from 1935 to 1938 and as works manager from 1938 to his present appointment at the Springfield plant.

# ROPE

## CONSERVATION NOTE BOOK




CLEANING and DRYING ROPE
PAGE 2
Rope that is stored when wet or dirty will quickly lose its strength. It should be cleaned and dried thoroughly in the open air and sunlight, if possible. Draw out the rope in a straight line and let it dry normally. Forced drying, such as wrapping it around a boiler or oven, causes the rope fibres to become brittle and deteriorate.
Do not permit wet rope to freeze because ice particles inside the rope act as cutters on the fibres—always thaw and dry a frozen rope before using again.
For further information on treatment of rope, write for Booklet "Care and Conservation of Rope"

5512

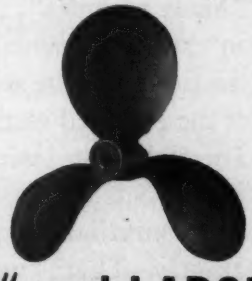
**NEW BEDFORD CORDAGE CO.** 233 BROADWAY • NEW YORK, N. Y.
31 St. James Avenue • Boston, Massachusetts
Mills: New Bedford, Massachusetts

## CHRYSLER POWER
### Gives Proven Economy in Dragger Service

The dragger "Clara T.", owned by Capt. Robert Sanchez of New Bedford is powered by a Chrysler Royal marine engine with 3:1 reduction gear. It turns a 32 x 20 propeller at cruising speed of 9 mph., and has low fuel consumption.

**CHRYSLER MARINE ENGINES**
Are Available To Turn Propellers up to 40"
See your boat builder or contact
**WALTER H. MORETON CORP.**
*New England Distributors*
**1045 Commonwealth Ave., Boston**

## *The "High Liners" must have efficient, dependable equipment*



## 52" and LARGER

Where lives as well as profits are at stake both owners and skippers realize the necessity of using propellers of proven quality. That is why you will find Hyde Propellers on the "high liners" of the fishing fleet. Let the experience of the men who know be your guide—specify Hyde.

**HYDE PROPELLERS**

EFFICIENT . . . RELIABLE
ALWAYS GET HOME SAFELY

**HYDE WINDLASS COMPANY, Bath, Maine**

REINER
*Made to Order*

REINER Marine Auxiliary Unit.

**Diesel Marine Auxiliary Units and Generating Sets**

"Made to order"... yes, even in these days when mass production from the assembly lines is the expected method, Reiner Diesel Marine Units and Generating Sets are "made to order" to fit auxiliary requirements exactly. That's what makes them the better buy... what has influenced such exacting buyers as Army, Navy, Coast Guard and Maritime Commission to accept Reiner.

JOHN REINER & COMPANY
12-12 37th AVENUE, LONG ISLAND CITY 1, N. Y.

★ ★ ★ ★ ★ ★

# New Brunswick Seining Fleet Income High for March

**By C. A. Dixon**

FISHERMEN in general throughout the coastal sections of southern New Brunswick swung into concerted action in respect to the reconditioning of boats, scows, pile-drivers, and other necessary equipment, right after the line gale, and since the 20th of March there has been a lot of work going on. Meanwhile the purse seiners in Charlotte County, after having produced what are believed to have been record landings for the month of March, find themselves slowed up quite a bit as April arrives, due to a petering out of the sardine herring schools in the "north shore" region of the coast. Catches dwindled toward the last of March in that area, but some fish are being caught, and landings have also been made from the Grand Manan area. Taken all around the winter seining season has produced its ups and downs, as considerable damage to big seines took place, thereby taking the cream off the income for some of the crews. As is the case always with all kinds of fishing, however, some made a lot of money while others did not do so well. The aggregate income in March for the seining fleet, however, is believed to have been above that of any like period. More seines were in operation and more boats were in use. In February the seiners made more than $60,000 gross.

### Grand Manan Business Growing

A report from Grand Manan states that several firms in that district, Canada's chief producing center for smoked and boneless herring and large herring used for cutting, have provided much employment during the winter. Substantial payrolls have been the order of the day, and prices paid for piece-work have been correspondingly high. The firms have paid 75 cents a hundred sticks for stringing herring (the old-time price was 25 cents) and 40 cents for boning a 10-lb. box of the boneless product. The herring have been much smaller than usual, however, and this fact prevented the workers from becoming rich, but they have done well, nevertheless. The report states that several large United States' firms are making preparations for the next season at Grand Manan, and one fish buying concern from Upper Canada is also to enter the herring processing field in that center.

### To Introduce Dragging Methods

It is reported that an innovation in regard to the catching of groundfish will attract the interest of many in southern New Brunswick and eastern Maine when a small dragger, recently fitted out, will operate on the Grand Manan Banks. The introduction of dragging methods in these waters will introduce a great change in the fishing methods that have been confined for decades to long line fishing and handlining.

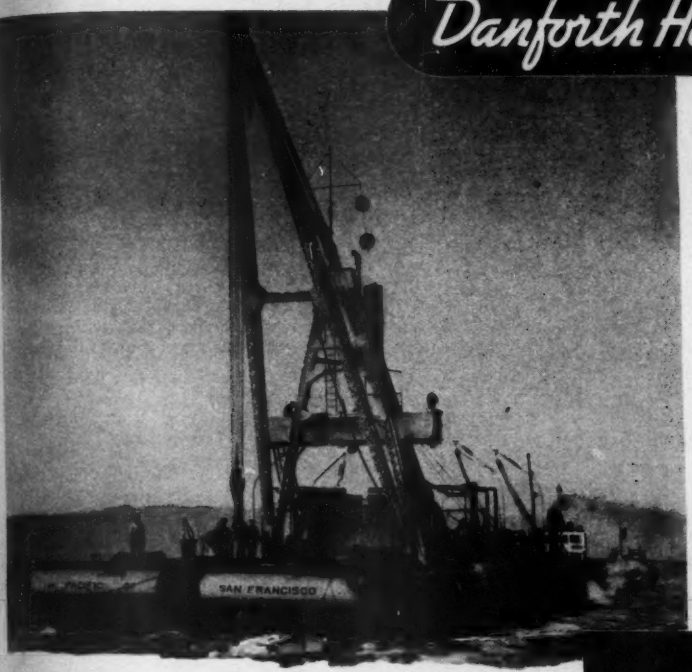
### Exports Less Than Local Pack

Contrary to general belief, sales of sardine herring in the month of February, as officially shown, caused surprise in many quarters when it was learned that more sardines were used by the Canadian canneries during the month than were exported to factories in eastern Maine. Exports to Maine amounted to 15,527 barrels of fish, as compared to 21,833 barrels put up by the Canadian sardine canneries.

### Cod, Haddock, Scallops

More cod, which were sold for higher prices, were caught in Charlotte County, and Saint John County, in February this year—an increase of 678 hundredweights. The fish were sold for as high as $8 a hundredweight at Campobello, West Isles and Eastern Charlotte, while in St. John County the lowest price was received, $4.25 a hundredweight. Many more haddock were caught and these were sold for $8 a hundredweight. Only a few scallops were taken as many fishermen abandoned scallop fishing to enter the purse seining activities in the sardine fishing industry. Total landings of all kinds of fish during the month amounted to 43,401 hundredweights, with a landed value of $79,248, the major portion of which were caught and sold by fishermen of the islands of Deer Island, Campobello, and Grand Manan.

# Danforth Held 'til Cable Parted



## 3 KEDGES DRAG, ONE DANFORTH HALF THE WEIGHT HOLDS BARGE

The cable barge "Pacific" is used to place and maintain sub-marine communication cable. This vessel is 40 ft. by 100 ft. and heavy above the water. The barge is operated on San Francisco Bay. Prevailing conditions are strong winds and heavy tides. • Recently the barge was anchored with a 1000 and a 1500-lb. kedge at the bow and a 1500-lb. kedge and a 500-lb. Danforth at the stern. Conditions were adverse. The three heavier kedges soon dragged. The Danforth held until the 7/8-inch steel cable parted.

*Distributed through ship chandlers.*
*Fully protected by U. S. and Foreign Patents.*

**Army and Navy uses Danforths** half, or less than half the weight of kedge or stockless anchors. Saving in weight makes Danforths easier to handle.

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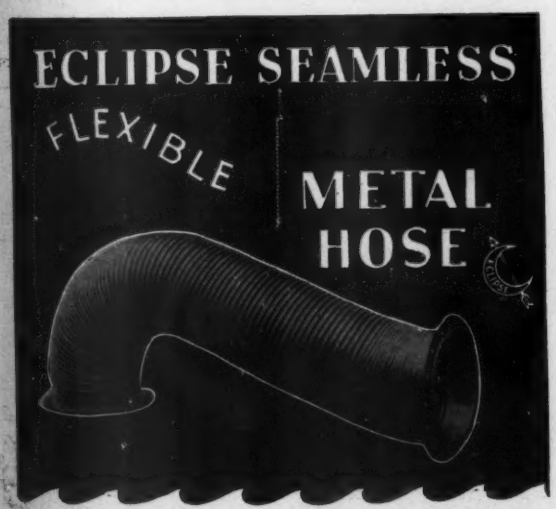
BUY WAR BONDS

# ECLIPSE SEAMLESS FLEXIBLE METAL HOSE



## Gives You these Desirable Features:

**Seamless construction that minimizes danger of leakage**
**Maximum flexibility that lessens the effect of vibration**
**Ease in attaching a wide variety of available fittings**

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ECLIPSE AVIATION
SEAMLESS FLEXIBLE METAL HOSE
MANUFACTURED AND SOLD BY
BENDIX AVIATION CORPORATION
PHILADELPHIA DIVISION

THE INVISIBLE CREW Bendix

# Trawler repairs in the port of BOSTON

With so many trawlers now on war duty, it is more important than ever before to keep those still in service in good running order. Bethlehem's two repair yards in Boston harbor, the Atlantic Yard and Simpson Yard, have unexcelled facilities for repairing and reconditioning trawlers. Get in touch with one of these yards next time you need trawler repairs.

**BETHLEHEM STEEL COMPANY**
**Shipbuilding Division**

*General Offices:*
*New York, N. Y.*

*Boston Office:*
*75 Federal St.*

"HIAWATHA SPECIAL" 58-90 hp.

**Wartime Uses:** U. S. Army Signal Corps—communication service in Alaskan waters. Engineers, various services. U. S. Coast Guard — patrol boats. U. S. Government fishery service.

**Peacetime Uses:** For fast medium duty cruisers. Larger heavy duty cruisers and work boats (when equipped with reduction gear as illustrated).

**Red Wing marine ENGINES**

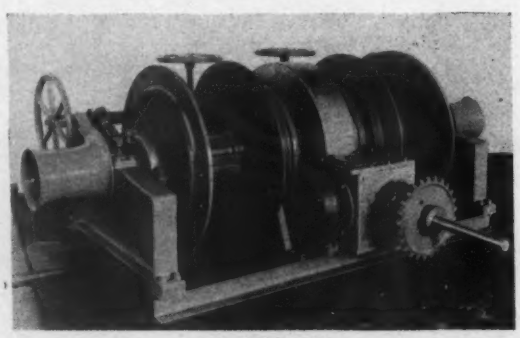
Increased Bore now gives HIAWATHA Greater Power — smooth, quiet power as well as lots of it. And durability — built in with the extra-rugged crankshaft . . . and every other part proportionately strong. An engine that can stand up and take it — for years to come — and do it with less upkeep. The *"Hiawatha Special" Model* — gasoline, 6-cyl., 4-cycle, L-head — 4-in. bore x 4¼ in. stroke, 320 cu. in. displ., 1500 to 3000 r.p.m.

OTHER RED WING ENGINE SIZES

*20 Gasoline Models: 8 hp. to 125 hp.*
*Spark Diesels Types: 42 hp. to 125 hp.*

RED WING MOTOR CO., RED WING, MINNESOTA

HATHAWAY WINCHES
*Catch 'em Fast*
For the High-liners



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Ten Models that meet Every Fishing Requirement

**HATHAWAY MACHINERY CO.**
FAIRHAVEN, MASS.

Complete Deck and Underwater Equipment: Shafts, Stern Bearings, Stuffing Boxes, Bollards

*John B. Perkins, left, and Thad Eaton of the Perkins-Eaton Machinery Company, Caterpillar distributors of Boston, Mass.*

## Perkins-Eaton, New Caterpillar Distributor for Mass., R. I.

ANNOUNCEMENT has just been made by Caterpillar Tractor Company, Peoria, Ill., manufacturers of marine Diesels and other equipment, of the appointment of Perkins-Eaton Machinery Co., a newly formed partnership, as distributor of its products in Massachusetts and Rhode Island.

The principals of the new Company are John B. Perkins, former treasurer and manager of the P. I. Perkins Company, who previously acted as Caterpillar distributors in this territory, and who have discontinued operations; and Thad Eaton, former assistant treasurer, Caterpillar Tractor Company.

Mr. Perkins has lived in Boston all his life and is well known in the fishing industry as a distributor for Caterpillar marine Diesels.

Mr. Eaton joined the Caterpillar Tractor Company in 1928, starting as assistant credit manager for the Middle West territory. He spent almost a year in the territory, ranging from Texas to Saskatchewan, completing the task of closing or transferring the accounts of one of the predecessor companies of "Caterpillar". Following this, he was advanced to the position of assistant credit manager for Export, in 1938 becoming manager of that section. In 1940 he was appointed assistant treasurer, the position he held at the time of his resignation.

Hammond M. Perkins, formerly with P. I. Perkins Co., in charge of sales, engineering, and installations of marine Diesels, stationary power plants and electric generator sets, will occupy the same position in the new Company.

## Moore Named Manager of Worthington Marine Engine Sales

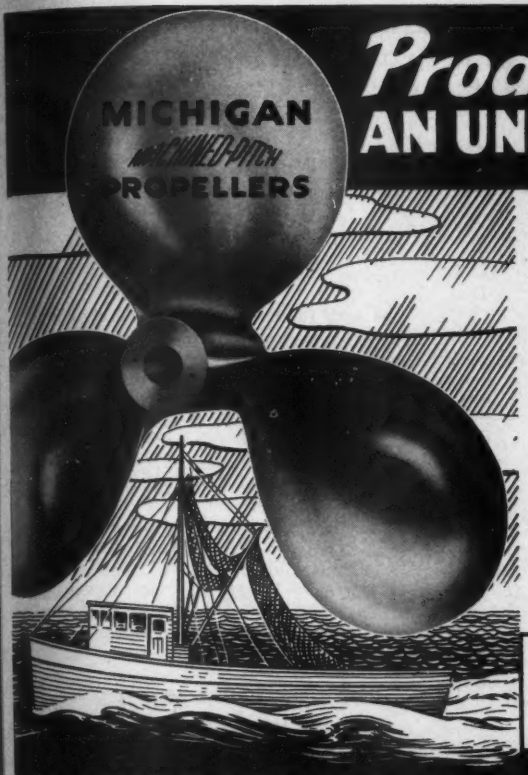
WORTHINGTON Pump and Machinery Corporation announces the appointment of Wesley B. Moore as manager of marine engine sales with offices at Worthington's Buffalo, N. Y., plant.

*Wesley B. Moore*

Identified with Diesel engine industry some 22 years following graduation in mechanical engineering from Steven's Institute of Technology, Mr. Moore, prior to service with Worthington, was long associated with Fairbanks-Morse in various capacities including manager of Fairbanks-Morse's marine department in New York City and, more recently, manager of general Diesel sales at its Chicago office.

Mr. Moore's present assignment follows Worthington's interest in increased marine application of its regular Diesel engine line and a contemplated line of newly developed marine Diesels.

# Product of AN UNBEATABLE COMBINATION




40 years of specialization in the designing and building of top-notch propellers —

**PLUS** the exclusive and super-accurate MACHINED-PITCH process that insures perfection in the finished product —

**PLUS** special alloys that are tougher, more resistant to corrosion and longer wearing.

When yon need a propeller buy MICHIGAN, they're better buys.

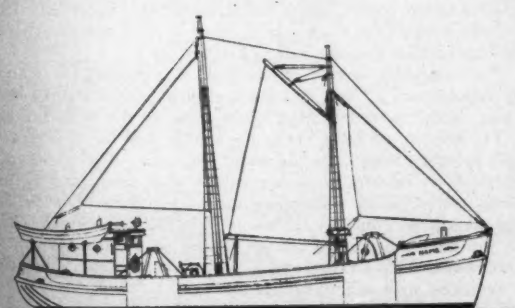
FOR AN OUTSTANDING JOB OF WAR PRODUCTION

**EXPERT RECONDITIONING** of propellers of all makes by the guaranteed accurate MACHINED-PITCH method is available at our strategically located Service Stations. Write for name of nearest one.

**MICHIGAN WHEEL COMPANY • Grand Rapids, Michigan**

## FAMOUS CASEY FISHERMEN

*Are Again Available*



*82' Dragger now building from Eldredge-McInnis design*

New England Distributors for

**KAHLENBERG HEAVY DUTY DIESELS**

Five Marine Railways Handling up to 500 tons

Complete Fishermen Repair Service and Engine Parts

**CASEY BOAT BUILDING CO., Inc.**

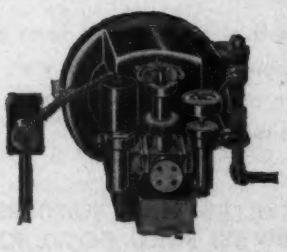
FAIRHAVEN, MASS.

*Boats with Fine Workmanship and Lasting Quality*

# PREFERRED

*LOW CONSUMPTION*

**FUEL OIL BURNERS**



*Put More Efficiency into Galley Equipment*

PREFERRED Marine Ranges warm up faster, cook quicker, are readily controlled by patented throttling mechanism . . . Preferred Marine Roasting and Baking Ovens bake and roast more uniformly, using less fuel . . . Preferred Heating Systems operate dependably, efficiently, save space, also meet heavy hot water service demands . . . Write for FREE Descriptive Bulletins.

Adapted to Diesel or lighter oils

**PREFERRED UTILITIES**

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SPECIALISTS
IN MARINE FINISHES

Because of years devoted exclusively to the manufacture of the finest Marine Paints and Varnishes ... Pettit Paints always give bright, smooth, long-lasting surfaces that won't blister, crack or peel. This is the reason so many commercial fishing vessels, whose steady operations are essential, depend on Pettit Paints for their protection.

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PAINT since 1861 PETTIT
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FISHING BOATS

ENLARGED FACILITIES FOR CONSTRUCTION AND REPAIR AT YOUR SERVICE

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Our staff of experienced naval architects and engineers will consult with you and prepare plans and specifications to meet your requirements.

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OUR SKILLED BOAT BUILDERS KNOW HOW TO BUILD GOOD BOATS

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3 MARINE RAILWAYS

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INCORPORATED
BOAT BUILDERS and ENGINEERS
Milton Point Rye New York

## Maxim Silencer Promotions

H. H. MAXIM, President of the Maxim Silencer Company, has announced the appointments of Roland E. Bourne as Vice President in charge of Research and Frank L. Orr as Vice President in charge of Sales for the Company.

Mr. Bourne has directed the Maxim Research Department since 1925. Previous to coming into Maxim he was Chief Engineer of the D. C. Tuska Co., manufacturers of radio equipment, and previous to that spent three years as a radio engineer with the Radio Corporation of America. He is a graduate of Rensselaer Polytechnic Institute and holds an E. E. degree.

Mr. Orr has been with the Company since November 1930, when he became District Manager of the New York office. In 1933, when the Sales Department was moved from New York to Hartford, Mr. Orr became Sales Manager of the Company. Previous to his connection with Maxim Mr. Orr was active for five years in the sales department of the New York office of Fairbanks-Morse.

O. Smith Johannsen, recently appointed Manager of the Maxim Silencer Company's New York office, was born in Oslo, Norway.

Coming to America, Mr. Johannsen first worked for Lidgewood Manufacturing Company of Brooklyn, N. Y. Later he was with the Robins Conveying Belt Co. of New York, and the Gifford-Wood Company of Hudson, N. Y., where he worked for three years as Designing Engineer. Since 1917 he has been exclusive sales representative for manufacturers of marine equipment and engineering specialties.

## "Bobby and Harvey"

*(Continued from Page 21)*

bronze and mahogany. There is a 30" fabricated steel quadrant and balanced steel rudder, which were made by the shipyard.

The outer sheathing on the deckhouse is of plywood, while inside finish is cypress. A gear storage rack is located over the after deck between the two life dories. The engine exhaust pipe with Burgess Snubber, which projects forward of the pilot house is carried back to the stern in order to clear the deck of smoke.

The vessel has an extra large amount of deck space. Shelling boxes for the handling of scallops are attached to the rail either side of the deckhouse. The two fish hold hatches are furnished with welded steel covers which clamp down over the usual wooden covers, and provide maximum protection. There are two Edson Non-Chokable hand deck bilge pumps. The vessel has varnished spars, and is ketch rigged.

The amidships section of the hull is protected for dragging operations with 1" oak sheathing, applied over a coat of heavy paint. Pettit seam compound was used on the deck and hull.

The fo'c's'le contains bunks for 8 men, and has a steel water tank of 600 gallon capacity under the floor. The sliding table operates on runners on either end, and is suspended by wire cables connected to counterbalance weights located in the hollow stanchions. Another feature is the wash basin which is hung on the port side of the dresser. There is ample provision for food storage and clothes and oil skin locker space. The galley is equipped with a Shipmate range.

Kidde-Lux portable fire extinguishers are located at strategic points throughout the boat.

The vessel is powered with a 150 hp., 5 cylinder, 8¾ x 10½ Fairbanks-Morse Diesel, which is fresh water cooled, and has built-in bilge and salt water pumps. Off the forward end, it operates a 2 kw. motor driven generator with automatic voltage control, and a belt-driven wash down pump.

There is a multiple-V-belt drive from the engine to a counter shaft, to which is connected a chain drive for the winch, the operation of which is controlled from the deck through a Kinney clutch. The winch and deck gear were furnished by Hathaway Machinery Co.

The auxiliary set is a Deseco unit furnished by Diesel Engine Sales & Engineering Corp., and consists of an 8 hp. Lister-Blackstone Diesel driving a 5 kw. Imperial generator, and operating a Curtis compressor, and Goulds pump through Kinney clutches.

## Proposed Caribbean Development

THE Caribbean Fishery Mission, which undertook a survey of fishery resources in that area to help meet wartime food needs, has recommended that an international organization be set up to coordinate fishery development, management and research activities in the Caribbean Sea.

The Mission's recommendation is contained in a report on the fact-finding survey of the 800,000-square-mile area, in which about 95,000 commercial fishermen and 30,000 fishing boats operate. The survey was conducted by the Fish and Wildlife Service, in cooperation with the Inter-American Development Commission and the Office of the Coordinator of Inter-American Affairs.

The Mission, which was comprised of Reginald H. Fiedler, Milton J. Lobell and Clarence R. Lucas, of the U. S. Fish and Wildlife Service, also suggested that the governments concerned should organize fishery development and management agencies.

"Fishery resources are valuable assets that must be used under governmental control if they are to be protected from over-exploitation or wasteful lack of use," the report says.

The fishery survey was initiated when it became evident, soon after Pearl Harbor, that increased local production of foodstuffs was needed—particularly in the Caribbean. In addition to the American republics in the area, the survey covered British Colonies in the Caribbean and the Pacific Coast of Central America.

It was probably the first extensive fishery survey to use air travel as a basic means of transportation. About 25,000 miles were covered by air transport and the remainder—about 5,000 miles—was accomplished in schooners, sloops, trains, gas-cars, automobiles, dugout canoes, ox-carts and on horseback.

Among the findings of the Mission were:

1. The pelagic species of fish (migratory fish existing near the ocean surface, such as tuna, swordfish and Spanish mackerel) offer—both inshore and offshore—the greatest possibilities for fishery development in the Caribbean.

2. Most of the habitat types (non-migratory) will stand further fishing, but to a limited extent, and this added strain must be controlled by the governments concerned.

3. Other fishery resources, such as lobsters, shrimp, turtles and whales, are available but in limited amounts.

Normal local consumption of fishery products is about 310,000,000 pounds a year, of which 160,000,000 pounds are normally caught in the Caribbean Sea and about 150,000,000 are imported.

The Mission concluded that the catching of so-called "blue water" fish, such as swordfish, tuna and Spanish mackerel, is the best means of fishery expansion in the Caribbean area. It said practically every country would increase the catch of fish in its waters—some considerably and others on a limited scale.

DeWitt
AMERICAN MADE
TARPON & TUNA
FISH HOOKS

THE DEWITT LINE of fish hooks includes all the styles, sizes and types required by the aquatic food industry. From the largest to the smallest hook, DeWitt can supply it — in the outstanding quality for which all DeWitt Hooks are noted.

We invite commercial fishermen in every part of the world to investigate the complete line of DeWitt Hooks. Tell us the type and size you use, and let us send you samples and quote on your requirements.

*Give the name of your supply house.*

DeWitt Hooks are in Fishing Kits used by our Armed Forces

Bill DeWitt Baits Auburn, N. Y.
DIVISION OF SHOE FORM CO. INC.

SHIPMATE

MODEL
10350
GALLEY RANGE

Oil burning, 100% insulated range designed to serve up to 25. Low current demand and economical fuel consumption. Heavy-duty cast-iron construction.

SPECIFICATIONS

| | |
|---|---|
| Size of Oven | 19½x18x11 |
| Size of Top | 37x29 |
| Size of Pipe Collar | 7 |
| Overall Dimensions | 37x30½x30¾ |
| Weight | 501 |

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ESTABLISHED 1830 STAMFORD, CONN.

BETHLEHEM STEEL

Why bethanized trawler line lasts longer

Bethanized trawler line outlasts ordinary zinc-coated line because the zinc is locked to the wires by electricity. The coating, applied by an electrolytic process, is absolutely uniform, both around and along each wire. It is 99.9+ per cent pure, making it virtually crackproof and unusually resistant to salt-water corrosion. Furthermore, the wires in bethanized trawler line are every bit as strong and tough as those in uncoated wire rope. Now that you must get the utmost service from your trawler line, buy bethanized line.

# Vineyard Fishermen Fear Nickel Ceiling

**By J. C. Allen**

THE fisheries of Martha's Vineyard Island have been in existence for just about 280 years, as a commercial enterprise. There is no existing record to show that there was ever a period in that time when the luck utterly failed through the absolute dearth of all species of fish. But the present prospects of the small-boat fisheries—and it has been small-boat fishing for the greater part of the period—look about as gloomy as they ever have.

Uncertainty as to what actually may be expected clouds the outlook at the present time. Just what the ceiling regulations eventually will develop into, is not clear as this report is written. But if the suggestion of the nickel ceiling on all previously unclassified fish goes into effect, it means the end of hand-lining in these waters and very probably the end of trap-fishing as well. The pond and creek fishermen have ignored the herring run thus far, because of the ceiling of 1½ cents on those fish. Our early run always brings 8 to 10 cents a pound, and the fish were sold for 2 to 3 cents apiece for bait, fifty years ago.

Coming at the end of a tedious month, the local sea-skimmers can hardly be blamed for feeling gloomy. Weather conditions have been about as tough as they ever come in Spring, with only one week during last month when the fleet could really operate to full capacity. The apparent scarcity of fish inshore has caused much prospecting of grounds in shoal water and bold, without any certain results, although now and then a single boat has hailed a decent fare of fish.

As all hands know, this shortage has been felt everywhere to some extent, and because of this the marketing of ling has resulted. Disregarding the fact that the local variety of ling is one of the outstanding errors of the Creator, the fact remains that it has constituted about 50 percent of the total receipts of fish in this locality since it began to be marketed. Now, as we get the drift in this neck of ocean, there is reason to believe that it may be condemned as a food-fish.

It is not apparent that anyone argues against this. But the point we are making is simply this: if the boats may not market ling, and the average price of all fish is due for another drop, somebody is bound to suffer severely, and that is the reason why our small-boat fishermen are taking a gloomy view of the immediate future. As we said before, there is uncertainty as to just what is to be done. Perhaps this flurry will oil over and smooth out with all hands satisfied. But the wild cry for "Fish!" and "More Fish!" sounds from Washington, yet the Powers that Be are operating in a manner that is discouraging fishermen, especially the small-boat fishermen.

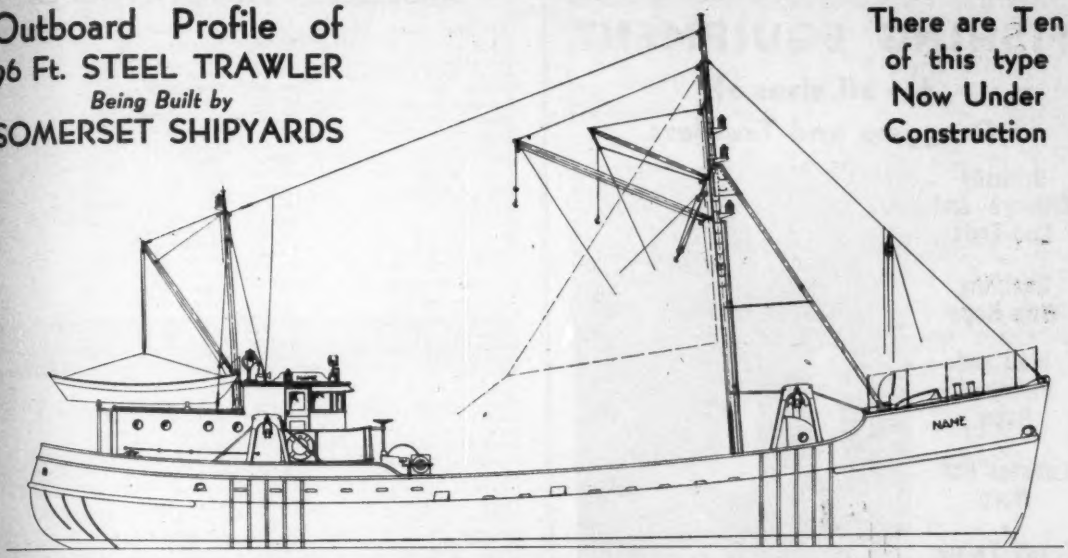
The optimism among these lads that is manifested by their plans and procedure is inspired only by a decidedly long-range view of the future of the industry. There are three large boats being built at the present time for Vineyard skippers. These lads are looking forward to the ending of the war, and the ending, also, of Government Bureaus and the like.

But the immediate present presents a cockeyed problem which requires some dusting off and unkinking if the requirements of the day are to be met. We have commented previously on the movement of fish last season, and the peculiar trend which seemed to indicate a return of conditions as they were 40 years ago. This has not escaped the attention of local sea-skimmers who are awake to possibilities. They have seen the promise of some luck in the trap-fishing, which has dropped to a low ebb during the past 25 years. But the necessary gear is difficult to obtain, so it is doubtful if there are many more traps set this year than there were a year ago.

We hate to be pessimistic and we dislike spreading gloom. If there is a rift of sunshine anywhere, we strive to locate it and broadcast the information. But we have checked the activities of our local fleet week by week since the first of the year and we believe that when this year ends, it will be shown that our fleet has landed far less fish than it did in 1943.

Outboard Profile of
96 Ft. STEEL TRAWLER
*Being Built by*
SOMERSET SHIPYARDS

There are Ten of this type Now Under Construction




**We are equipped to build and repair all types of steel vessels up to 200 feet. Your inquiries solicited**

The SOMERSET SHIPYARDS, Inc.
Box 831 — Fall River, Mass.

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**Maximum Protection Against Profit Loss**

Sardine seines and Weir netting, Mackerel Seines and Nets, Flounder Drag Netting, Cotton and Linen Gill Netting, Cotton Netting for Traps and Pounds, Twine, Maitre Cords, Corks, Leads, Ropes, and Fittings.

QUALITY NETS FOR EVERY PURPOSE
READY STOCKS AT IMPORTANT POINTS

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**Home Office: 540 Orleans St. Chicago, Ill.**

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## Seafood Toolmaker No. 1

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Yes, sir,—more Briddell tools are used by harvesting and processing folks, to help 'em make a living, than any other make. Must be a reason. Ask your dealer, or write direct.

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*Craftsmen in Metal since 1895*
CRISFIELD, MARYLAND

**FISHING EQUIPMENT**

**for all sizes of Draggers and Trawlers**

Grimsby Fittings and Cod Ends

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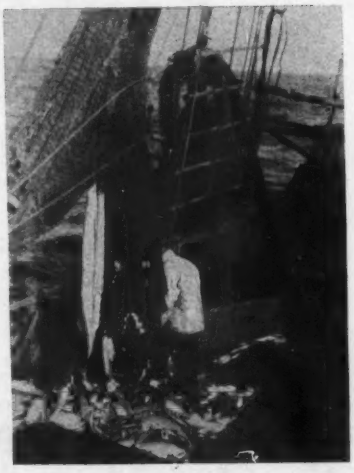

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279 Northern Ave. Boston, Mass.



**NEW ENGLAND**

WINCHES AND HOISTS

For The Fishing Industry

Model No. 768

**NEW ENGLAND TRAWLER EQUIPMENT CO.**

EASTERN AVE CHELSEA MASS


## Gloucester Landings for March

(Hailing fares. Figure after name indicates number of trips.)

| | | | |
|---|---|---|---|
| Alden (3) | 67,000 | Leonora C. (2) | 160,000 |
| Aliburton (12) | 27,900 | Linta (2) | 51,000 |
| Alicia (4) | 74,000 | Little Joe (3) | 45,500 |
| America (2) | 68,000 | Lousam (2) | 3,400 |
| American Eagle (2) | 110,000 | Lucretia (1) | 3,000 |
| Angie & Florence (3) | 82,000 | Margie & Roy (1) | 1,700 |
| Anna Guarino (2) | 22,000 | Marietta & Mary (2) | 70,000 |
| Antonina (1) | 7,000 | Marsala (3) | 112,000 |
| Ariel (3) | 26,200 | Mary (5) | 45,000 |
| Austin W. (3) | 122,000 | Mary A. (3) | 153,000 |
| Beatrice & Rose (5) | 109,000 | Mary & Julia (3) | 168,000 |
| Billow (1) | 186,000 | Mary Curtis (3) | 240,000 |
| Blow (1) | 76,000 | Mary R. Mullins (2) | 220,000 |
| Breeze (1) | 144,000 | Mary Rose (3) | 228,000 |
| Calista D. Morrill (3) | 12,600 | Mayflower (2) | 19,000 |
| Carlo & Vince (4) | 92,000 | Nancy B. (2) | 14,000 |
| Caroline & Mary (2) | 260,000 | Naomi Bruce II (1) | 1,000 |
| Catherine (4) | 7,300 | Naomi Bruce III (3) | 5,300 |
| Cayadetta (1) | 20,000 | Natalie III (5) | 217,000 |
| Chebeague (2) | 25,000 | Newcastle (3) | 135,000 |
| Columbia (4) | 909,500 | No More (6) | 7,700 |
| Corinthian (2) | 265,000 | North Star (5) | 107,400 |
| Edna Fae (4) | 7,600 | Olympia (2) | 44,000 |
| Elizabeth A. (3) | 21,000 | Pollyanna (3) | 298,000 |
| Eliza Riggs (1) | 5,000 | Portugal (3) | 155,000 |
| Emily C. (2) | 4,500 | Rainbow (2) | 125,000 |
| Escort (2) | 9,500 | Richard J. (2) | 2,400 |
| Ethel S. Huff (4) | 25,0 | Richard J. Nunan (1) | 75,000 |
| Eugene & Rose (2) | 32,0 | Richard J. II (2) | 2,100 |
| Eva M. Martin (5) | 28,300 | Rose & Lucy (5) | 130,500 |
| Evelyn G. Sears (4) | 216,000 | Rosemarie (2) | 43,000 |
| Frank F. Grinnell (4) | 123,000 | Rosie & Gracie (3) | 123,000 |
| Frankie & Rose (4) | 74,000 | Rosie II (1) | 8,000 |
| Gertrude (1) | 1,500 | Ruth & Margaret (2) | 200,000 |
| G. N. Soffron (3) | 170,000 | St. Ann (6) | 195,000 |
| Golden Eagle (3) | 334,000 | St. Joseph (4) | 255,700 |
| Grace F. (4) | 230,000 | St. Providenza (7) | 42,000 |
| Helen M. (1) | 17,000 | St. Teresa (3) | 101,000 |
| Ida & Joseph II (5) | 44,500 | San Calogero (1) | 7,000 |
| Jackie B. (4) | 6,500 | Santa Maria (3) | 147,000 |
| Jackson & Arthur (4) | 19,000 | Sebastiana & Figli (1) | 10,000 |
| Jennie & Julia (7) | 89,500 | Sebastiana C. (3) | 111,000 |
| Joe D'Ambrosio (1) | 10,200 | Serafina N. (4) | 131,000 |
| Josephine & Margaret (1) | 45,000 | Serafina II (4) | 70,000 |
| Josephine P. II (1) | 13,000 | Thomas D. (1) | 65,000 |
| Killarney (3) | 289,800 | Trimembral (4) | 25,000 |
| | | Wind (3) | 320,000 |

## Boston Landings for March

(Hailing fares. Figure after name indicates number of trips.)

| | | | |
|---|---|---|---|
| Adventure (3) | 299,000 | Fabia (2) | 488,000 |
| Annie (1) | 9,500 | Flow (3) | 599,500 |
| Bettina (3) | 210,400 | Frances C. Denehy (3) | 239,200 |
| Billow (2) | 228,300 | Geraldine & Phyllis (3) | 148,500 |
| Blow (3) | 265,500 | Gertrude Parker (3) | 176,500 |
| Boston (1) | 97,000 | Gossoon (3) | 171,800 |
| Breaker (3) | 578,200 | J. B. Junior II (4) | 35,000 |
| Breeze (2) | 268,500 | Joe D'Ambrosio (1) | 10,700 |
| Brookline (3) | 405,600 | Lark (4) | 399,300 |
| Cambridge (3) | 477,300 | Lillian & Anna S. (3) | 35,100 |
| Comber (3) | 406,300 | Maine (4) | 539,500 |
| Cormorant (3) | 840,700 | Maria del Sacorso (1) | 11,300 |
| Dorchester (3) | 435,400 | Maristella (3) | 395,700 |
| Eddie & Lulu M. (1) | 1,900 | Marjorie Parker (3) | 233,700 |

**Scallop Draggers (Landings in Gallons)**

| | | | |
|---|---|---|---|
| Alpar (2) | 1,500 | Valspar (2) | 1,500 |

## Wheeler Launches Supply Vessel

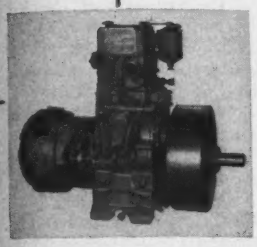
THE first of a new fleet of steel Diesel-powered Army Supply vessels from the Whitestone, N. Y., plant of the Wheeler Shipbuilding Corporation, was launched on April 6. The sponsor was Mrs. Thomas A. Terry, wife of Major General Thomas A. Terry stationed at Governor's Island.

Among those attending the launching was Major General Charles P. Gross of Washington, D. C. who is in complete charge of supplying all transportation facilities for the War Department.

This vessel is one of the largest of the steel vessels under construction for the Army Transportation Corps for the New York area, and is the first steel ship to be launched at this plant which previously has been devoted to the construction of the wooden vessels for the Navy.

## Pettit Offers Tide Calendar

THE Pettit Paint Co., Belleville, N. J. has announced that additional copies of their Boston Tides calendar for 1941 are now available. Write for one. It's yours without charge. Fishermen have found this handy tide calendar a convenient time-saver. Its easy-to-use computation table for determining the difference between times at Boston and other ports is wide in scope and arranged for quick reference. Just drop a card or letter to the company and they will see that you get your copy without delay.



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## "Lixate" Brine for Boats, Plants

As in meat packing plants, brine has largely replaced dry salting in many operations of filleting and canning fish and seafood within the last few years. A continuous supply of saturated crystal clear brine reduces labor and handling costs in salting operations, and insures uniform flavoring of the pack. The Lixator, developed by the International Salt Company, Inc., utilizes Grade CC rock salt, which is less expensive than evaporated salt.

Recent Fish & Wildlife Service research has indicated that mined salt is better for fishery operations than the sea water salt obtained by solar evaporation.

In striking fish in the holds of fishing vessels only 2.65 pounds of salt per bushel of fish are required when Lixate brine is used, compared with an average of 5 lbs. per bushel when fish are dumped into the hold and dry salt added. Because of the varying quantity of sea water taken in with the catch, brine of uneven strength is formed with the latter method and often much of the salt added by the man in charge of striking is not dissolved.

Fisheries with a Lixator have a line extending to the wharf so that full-strength brine from the storage tank can be piped directly into the boat hold. Thus all the labor of handling salt during the trip is eliminated and there is no danger of the catch spoiling because of insufficient salt on the journey back to the canning plant.

In the factory holding tanks where sardines are kept until they can be accommodated on the canning lines, the texture of the flesh and the appearance of the fish is improved by the use of Lixate brine reduced by the addition of water to 50 degrees salometer. Fish are submerged in these tanks for about an hour or more, during which the salt and water content of the fish is equalized.

Another International Salt development which has expedited and improved operations is the Saltomat, which is placed on the canning line just before containers are sealed. The machine automatically deposits a salt tablet of any desired size from 15 to 150 grains into each passing can, thereby guaranteeing uniformity of seasoning.


**Our Excellent Facilities are Available for—**

**SHIPBUILDING --- REPAIRS**

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Defense against Every Emergency—the Fisherman's Sentinel — Protects Lives and Investment.
Electro-Phonic Powerful Air Signal Supplies its own compressed air—no tank, no valves, no piping.
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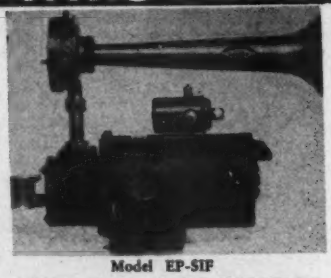

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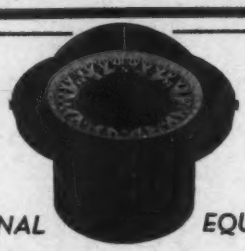

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## Boat Builders & Repairers Elect

AT the annual meeting of the members of the Atlantic Coast Boat Builders & Repairers Association, Inc., held on March 31 at the Hotel St. Regis, New York City, the following were elected to serve for the current year.

President, Marshall E. Tulloch of Greenport Basin & Construction Company; first vice president, Frank L. Sample, of Frank L. Sample, Jr., Inc.; second vice president, Major O. R. Hiltebrant of C. Hiltebrant Dry Dock Company; third vice president, Ralph Richmond of Quincy Adams Yacht Yard Inc.; secretary and treasurer, Henry B. Nevins of Henry B. Nevins Inc.; executive secretary, Jerome F. Healy, Jr.

Directors: New Jersey area—Carl Blackman of Delaware Bay Shipbuilding Co.; New York area and City Island area—Henry B. Nevins of Henry B. Nevins, Inc.; Long Island area—George Hossfeld of Jakobson Shipyard, Inc.; Maine area west of Penobscot—Frank L. Sample of Frank L. Sample, Jr., Inc.; Maine area east of Penobscot—Henry R. Hinckley of Henry R. Hinckley Co.; Hudson River area—Major O. R. Hiltebrant of C. Hiltebrant Dry Dock Company; Greater Boston & Northern Massachusetts area—Ralph Richmond of Quincy Adams Yacht Yard Inc.; Southern Massachusetts and Connecticut area—Halbert Hougham of Casey Boat Building Company Inc.; Rhode Island area—Carl Heffenreffer of Herreshoff Mfg. Co.

Directors at large: Marshall E. Tulloch of Greenport Basin & Construction Company; C. Lincoln Vaughan of Perkins & Vaughan, Inc.; Edward D. Whiting of George Lawley & Son Corporation, and Charles J. South of Camden Shipbuilding & Marine Railway Co.

## Super-Harbord Plywood Panels for Decks

TWO-PIECE plywood decks are among the interesting details of a line of prefabricated tugs being turned out for the Army at the plant of C. D. Johnson Lumber Corporation, of Toledo, Oregon. These great panels are 5 x 46 feet, one inch thick, and applied with a single caulking seam down the center line of the deck. They were turned out on special order by Harbor Plywood Corporation of Hoquiam, Washington.

Frames for these Army tugs are prefabricated in the department that made Johnson-built prefabricated houses before the war. Taken to an assembly bay they are assembled, lifted onto the assembly line by an overhead crane, and begin their speedy trip down a railroad track on log cars to final completion. As many as ten boats move on the assembly line at one time, each in progressive states of construction with a specialized crew at each job. Prefabricated wheel houses and trunk cabins, constructed by the Hawley Pulp & Paper Co.'s lumber division, of Salem Oregon, are trucked to Toledo, where they are hoisted by crane onto the nearly-completed hulls. Fuel and water tanks are then fitted into their specific places in the precision-built hull. The binnacle, specially built instrument panel and accessories are finally added and the completed tug moves by rail to shipways at the plant, where a locomotive crane, borrowed from logging operations, lifts it onto the cradle which launches it sideways into the Yaquina River for test runs and final approval.

The technique of making long, scarfed joint panels, now developed to a high state of perfection by the Harbor Plywood Corp., has provided a new and interesting material of almost unlimited applications in both war and peacetime construction.

Long panels are simplifying and speeding up the construction of fleets of small tugs and auxiliary vessels needed by the armed services on three coastlines and a score of fronts. For example, the use of the new long fir panels reduces the material needed for completely decking a certain type of tug boat being built at Pacific Coast boatyards to exactly two pieces of plywood. Likewise for hull sheathing on other classes of small craft, full length panels without a break from stem to stern are now available. It has been found entirely practicable to produce panels 50 feet in length, or longer if demanded.

# Where-to-Buy Directory

Companies whose names are starred (*) have display advertisements in this issue; see Index to Advertisers for page numbers.

### ALARM SIGNAL
Fleck Engineering Co., 1505 Eastern St., Baltimore, Md.

### ANCHORS
*R. S. Danforth, 2121 Allston Way, Berkeley, Calif.

### BATTERIES, STORAGE
"Exide": Electric Storage Battery Co., Allegheny Ave. and 19th St., Philadelphia, Pa.
*Willard Storage Battery Co., Cleveland, Ohio.

### BILGE PUMPS
*Marine Products Co., 6636 Charlevoix Ave., Detroit 7, Mich.

### CAN MANUFACTURERS
Continental Can Co., 100 E. 42nd St., New York, N. Y.

### COLD STORAGES
Quaker City Cold Storage Co., Philadelphia, Pa.

### CORDAGE MANUFACTURERS
*American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.
*Columbian Rope Co., Auburn, N. Y.
*New Bedford Cordage Co., 233 Broadway, New York, N. Y.

### CYLINDER LINERS, PISTONS, RINGS
Hunt-Spiller Manufacturing Co., 383 Dorchester Ave., Boston, Mass.

### DEPTH FINDERS
*Submarine Signal Co., 160 State St., Boston, Mass.
Bludworth Marine, 100 Gold St., New York 7, N. Y.

### DIESEL AUXILIARY SETS
*Lister-Blackstone, Inc., 1706 So. 68th St., Milwaukee, Wis.
*John Reiner & Company, 12-12 37th Ave., Long Island City, N. Y.

### ELECTRICAL EQUIPMENT
Diehl Manufacturing Co., 240 Congress St., Boston, Mass.
General Electric Co., Schenectady, N. Y.

### ENGINE MANUFACTURERS
*Atlas Imperial Diesel Engine Co., 115 Broad St., New York, N. Y.
*The Buda Co., Harvey, Ill.
Caterpillar Tractor Co., Peoria, Ill.
*Chrysler Corporation, 12211 East Jefferson, Detroit, Michigan
Cooper-Bessemer Corp., Mount Vernon, O.
*Cummins Engine Co., Columbus, Ind.
*Fairbanks, Morse & Co., Chicago, Ill.
Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.
The Lathrop Engine Co., Mystic, Conn.
*Lister-Blackstone, Inc., 1706 So. 68th St., Milwaukee, Wis.
*Mack Mfg. Corp., Empire State Building, New York 1, N. Y.
*Murphy Diesel Co., 5317 West Burnham St., Milwaukee, Wis.
*The National Supply Co., Superior Diesels, Springfield, Ohio.
*Oxco Motors Corp., 2020 E. Orleans St., Philadelphia 34, Pa.
*Palmer Bros. Engines, Inc., Cos Cob, Conn.
*Red Wing Motor Co., Red Wing, Minnesota.
*Wolverine Motor Works, Inc., 1 Union Ave., Bridgeport, Conn.
Worthington Pump & Machinery Corp., 421 Worthington, Ave., Harrison, N. J.

### Ford Conversions and Parts
*Oxco Motors Corp., 3648A No. Lawrence St., Philadelphia, Pa.

### Gasoline Engines
Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

### ENGINE DEALERS
*Walter H. Moreton Corp., 1045 Commonwealth Ave., Boston, Mass.
*Rapp-Huckins Co., Inc., 138 Beverly St., Boston, Mass.

### EXHAUST HOSE
*Bendix Aviation Corp., Philadelphia, Pa.

### EXHAUST SILENCERS
John T. Love Welding Co., Walen's Wharf, Wharf St., Gloucester, Mass.
*The Maxim Silencer Co., 74 Homestead Ave., Hartford, Conn.

### FISHING GEAR
*Westerbeke Fishing Gear Co., Inc., 279 Northern Ave., Boston, Mass.

### FISH SCALERS
#### Portable, Flexible Shaft
N. A. Strand & Co., 5001 N. Lincoln St., Chicago, Ill.

### FLOATS
J. H. Shepherd Son & Co., 1820 East Ave., Elyria, Ohio.

### FOG HORNS
*Clark Cooper Co., 319 N. Market St., Palmyra, N. J.
*L. D. Lothrop Sons, Gloucester, Mass.

### GASKETS
Fitzgerald Mfg. Co., Torrington, Conn.

### GASKET PACKING
Fitzgerald Mfg. Co., Torrington, Conn.

### GLUE
*L. W. Ferdinand & Co., 599 Albany St., Boston, Mass.

### HOOKS, Fish
*Bill DeWitt Baits, Hook Mfrs., Auburn, N. Y.
*"Pflueger": Enterprise Mfg. Co., 110 Union St., Akron, Ohio.

### NAUTICAL INSTRUMENTS
*Kelvin-White Co., 90 State St., Boston, Mass.

### NETS AND NETTING
W. A. Augur, Inc., 35 Fulton St., New York, N. Y.
*R. J. Ederer Co., 540 Orleans St., Chicago, Ill.
The Fish Net & Twine Company, 310-312 Bergen Ave., Jersey City, N. J.
*The Linen Thread Co., Inc., 105 Maplewood Ave., Gloucester, Mass.
A. M. Starr Net Co., East Hampton, Conn.

### OIL FILTERS
Briggs Clarifier Co., 1339 Wisconsin Ave., Washington, D. C.
*Hamilton Engineering Co., P.O. Box 1893, Boston, Mass.

### OILS
*Gulf Oil Corp., Gulf Bldg., Pittsburgh, Pa.

### OIL SEALS
Fitzgerald Mfg. Co., Torrington, Conn.

### PRESERVATIVES
"Campbell's Copper Compound": International Chain & Mfg. Co., York, Pa.

### PAINTS
International Paint Co., Inc., 21 West St., New York, N. Y.
*Pettit Paint Co., Belleville, N. J.

### PLYWOOD
*Harbor Plywood Corp., Hoquiam, Washington

### PROPELLERS
*Columbian Bronze Corp., Freeport, N. Y.
Federal-Mogul Marine Div., 4033-91 Beaufait Ave., Detroit, Michigan.
*Hyde Windlass Co., Bath, Me.
*Michigan Wheel Corp., Grand Rapids, Mich.

### RADIO DIRECTION FINDERS
Bludworth Marine, 100 Gold St., New York 7, N. Y.

### RADIO TELEPHONES
*The Hallicrafters, Inc., 2611 S. Indiana Ave., Chicago, Ill.
Jefferson-Travis Radio Mfg. Corp., 245 East 23rd St., New York 10, N. Y.

### RANGES
*Preferred Utilities Mfg. Corp., 1860 Broadway, New York 23, N. Y.
*"Shipmate" Stamford Foundry Co., Stamford, Conn.

### REVERSE & REDUCTION GEARS
Snow-Nabstedt Gear Corp., 25 Fox St., New Haven, Conn.
Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.

### RUBBER BOOTS
U. S. Rubber Co., 1230 Sixth Ave., New York 20, N. Y.

### RUBBER CLOTHING
U. S. Rubber Co., 1230 Sixth Ave., Rockefeller Center, New York 20, N. Y.

### RUST ARRESTER
*Sudbury Laboratory, 504 Dutton Rd., So. Sudbury, Mass.

### SEAFOOD TOOLS
*Chas. D. Briddell, Inc., Crisfield, Md.

### SHIPBUILDERS, BOATYARDS
*Bethlehem Steel Co., Shipbuilding Division, Bethlehem, Pa.
*Camden Shipbuilding & Marine Railway Co., Camden, Me.
*Casey Boat Building Co., Inc., Fairhaven, Mass.
*Defoe Shipbuilding Co., Bay City, Michigan
*Delaware Bay Shipbuilding Co., Inc., Lewsburg, N. J.
*Goudy & Stevens, E. Boothbay, Me.
*North American Motor Marine, Inc., 610 Fifth Ave., New York 20, N. Y.
*Wm. Edgar John & Associates, Inc., Milton Point, Rye, N. Y.
*Palmer Scott & Co., Inc., Ft. of Logan St., New Bedford, Mass.
Parks & Gamage, South Bristol, Me.
Reed Brothers, Boothbay Harbor, Me.
W. A. Robinson, Inc., Ipswich, Mass.
*Frank L. Sample, Jr., Inc., Boothbay Harbor, Me.
*The Somerset Shipyards, Inc., P.O. Box 831, Fall River, Mass.
*Wheeler Shipyard, Inc., Ft. of Cropsey Ave., Brooklyn 14, N. Y.

### STEERING GEAR
*The Edson Corp., 49-51 D St., South Boston, Mass.

### STERN BEARINGS
*Hathaway Machinery Co., New Bedford, Mass.

### TRAWLING EQUIPMENT
Bromfield Mfg. Co., Inc., 211 Northern Ave., Boston 10, Mass.
*Hathaway Machinery Co., New Bedford, Mass.
*New England Trawler Equipment Co., 301 Eastern Ave., Chelsea, Mass.

### VENTILATORS
*G. C. Breidert Co., 634 S. Spring St., Los Angeles 14, Calif.

### WIRE ROPE
*Bethlehem Steel Co., Bethlehem, Pa.

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**For Sale**

Fishing schooner, length 85 ft., beam 23 ft., 100 hp. Fairbanks-Morse engine. Price $14,000. Capt. George Broer, 313 4th Street, Greenport, L. I., N. Y.

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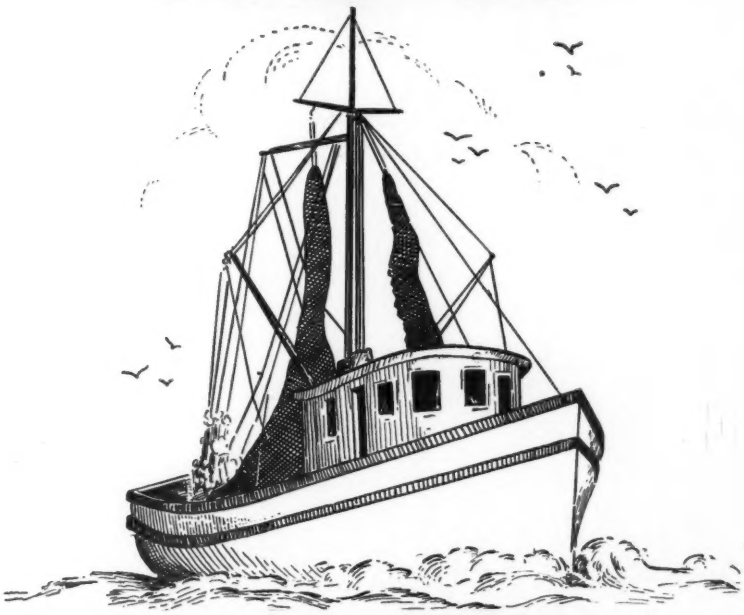

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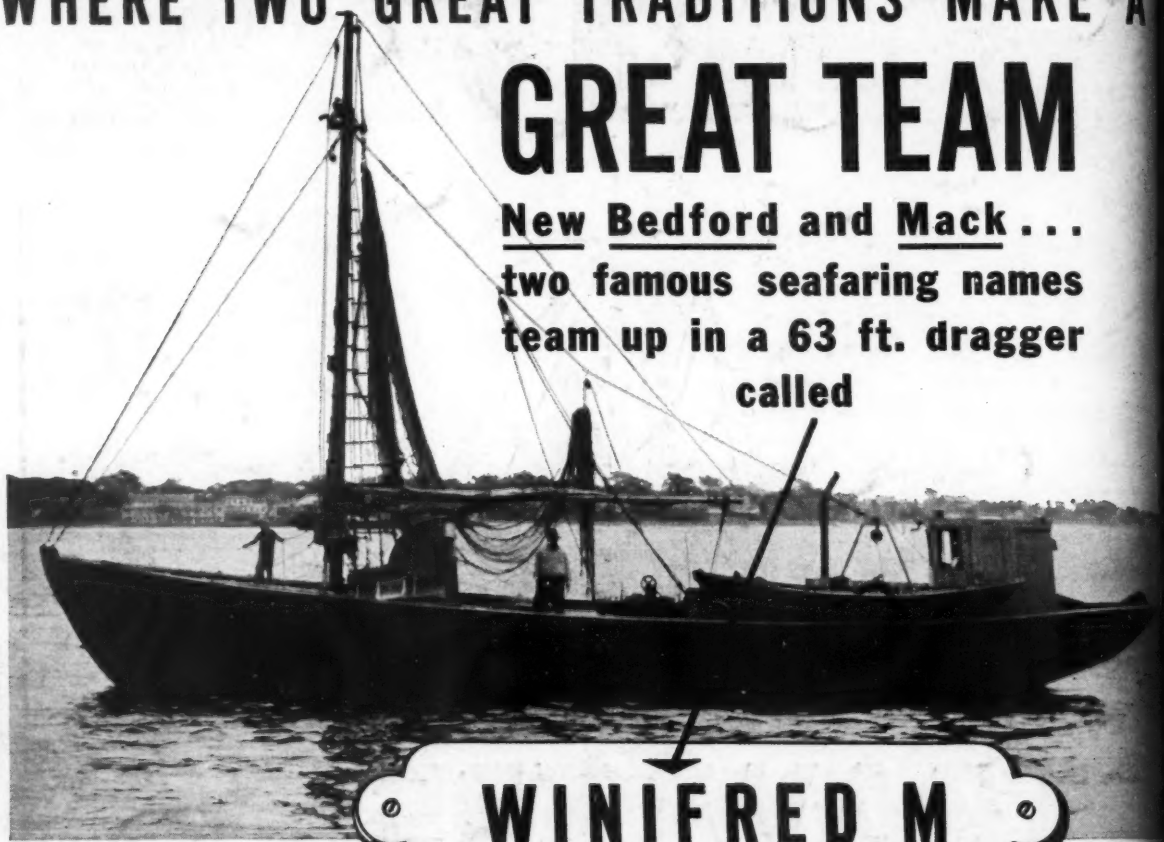

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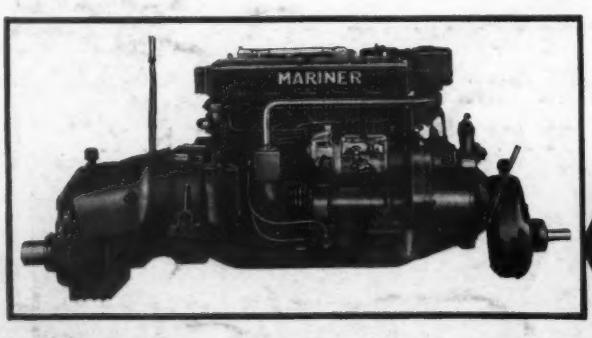
She goes to work powered with a 605 W, 100 hp. Mack Mariner Diesel, equipped with 3:1 reduction gear and a 40 x 25 propeller.

Her skipper is Captain Peter Eleniefsky, her owner, Antone Eleniefsky.

And she hails from New Bedford, proud birthplace of much that has made America great at sea.

Sea-going men of New Bedford, p and present, can share with Mack a feel for the right way to build a ship or a thing that goes into a ship. A Mack built especially for marine operation and built to the highest standards th are. The result is a workhorse engi rugged, thrifty, trustworthy . . . like ships that carried New Bedford's n around the world.

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